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# **DYNAMIC ENTERPRISE RESOURCE PLANNING CHART OF ACCOUNTS AND METHODS FOR IMPLEMENTING THE SAME**

*by Inventor*

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## **BACKGROUND OF THE INVENTION**

### **1. Field of the Invention**

This invention relates generally to enterprise resource planning (ERP) systems, and, more particularly, to the robust and dynamic organization of accounts in chart format to be used in connection with ERP systems.

### **2. Description of the Related Art**

The growth in computer information technology has spurred the creation of numerous ways to keep track of different types of accounts in a business setting. Within information technology (IT), there are two types of information technology systems. One type of IT support is targeted toward the so called "desktop" environments. This type of IT support includes, for example, setting up and maintaining personal computers, servers computers, and associated local area networks (LANs), wide area networks (WANs), Internet connectivity, and related service and infrastructure.

Another type of IT support involves application system support, such as ERP systems. ERP systems generally integrate all of the an organization's critical applications into an intelligently interconnected system. For instance, the ERP system should be capable of assimilating requirements or ideas from customers, and capable of incorporating different technologies including database management systems, operating systems, the Internet, procurement, data warehouses, and networks. Thus, ERP systems should be able to integrate numerous types of account data to dynamically update and track the operation of a given business.

Figure 1 shows a tree diagram of functions to be tracked by an exemplary ERP system 10. Examples of functions include finance 12, distribution 14, manufacturing 16,

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human resources 18, and payroll 20. The first major function is finance 12, which includes modules of general accounting 22, accounts receivable 24 (A/R), and accounts payable 26 (A/P). The components of general accounting 22 include, in this example, assets 46, liabilities 48, owner's equity 50, revenue 52, cost of goods sold (COGS) 54, and adjustments to COGS 56. The next major function is distribution 14, which contains three modules which are sales orders 28, procurement 30, and inventory 32. Major function manufacturing 16 includes two modules which are data management (PDM) 34 and materials resource planning 36 (MRP). PDM 34 includes two components which are research and development (R&D) 58 and distributions research planning (DRP) 60. MRP 36 includes exemplary sub-accounts work order processing 62 and supply & demand 64. Human resources 18 is another major function and contains two modules which are employees 38 and benefits 40. The final major function is payroll 20 which includes payroll details 42 and taxes 44. From this high level overview, the ERP system 10 has as its components numerous types of functions and modules which must be intelligently managed for a particular business enterprise.

Although new information technologies such as ERPs have provided both larger and smaller enterprises with newer and more powerful ways of tracking different types of accounts, regrettably these technologies also create associated problems and difficulties.

Unfortunately, oftentimes an organization will need to organize, structure, or track different accounts in specific ways as required during data mining (e.g., updating data), report writing at specific fiscal intervals, Securities and Exchange Commission (SEC) report generation, or analytical analysis of the organization's data. For these purposes, a chart of accounts (COA) is often used to record (capture) the financial aspects pertaining to the business transactions of a company. But, with the present types of chart of accounts (COA) maintained by organizations and interfaced with ERP systems, such data retrieval or data updating cannot be conducted without use of business consultants and computer programmers at a high expenditure of time, money and resources. For example, the COAs available today have numerous categories of accounts, which are organized using a company specific numbering system. Unfortunately, in many circumstances account numbers given to certain accounts do not always correspond to the correct account

category. Therefore, a specific account number will not strictly define what type of account that specific number is supposed to represent.

This inconsistency is in part governed by the fact that companies try to maintain legacy numbering techniques for the different accounts or the business consultants generate new charts of accounts with exceptions to the numbering system. Although these exceptions handle certain account rectification for a given client desiring to move to an ERP based system, these exceptions have the downside of introducing inconsistent account interrelationships. To remedy this problem, the company that is moving to an ERP based system will be required to spend a significant amount of time with its business consultants and computer programmers to account for each and every exception built into the creation of its custom chart of accounts. Even when such programming is complete, the company users of the ERP system, such as a chief financial officer (CFO), will be required to continually invest in additional business consulting time to generate reports during a given fiscal year. Such report writing is often a complicated task since the report must incorporate certain accounting rules, government guidelines (e.g., such as those dictated by the SEC), and other presentation rules.

Additionally, in certain COAs, different account numbers have more digits than other account numbers. For example, a particular account number could have 6 digits while another account number of the same account type can have 9 digits. In one embodiment, an accounts receivable account may have a certain generic 6 digit account number such as 140500 while another accounts receivable account could have a 9 digit account number like 14060.100, with the last three digits designating a certain subtype of that account such as accounts receivable from a specific customer. Consequently, confusion can take place when attempting to categorize and organize account types with different numbers of digits in their account numbers.

Even when the present COAs have provisions for organizing account numbers by account types, most COAs do not always account for growth or subdivisions of account types. Therefore, when new sections of accounts or new individual accounts are added to a COA, new haphazard account numbers which do not correspond to the correct account types may be assigned to the new accounts. Therefore, any additions of new accounts to a

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correctly organized COA can create problems when such additions are not foreseen and accounted for by the COA. As mentioned above, this creates problems later when specific account types or account numbers must be manipulated for a particular business purpose. Once again, time-staking computer programming effort must be expended to handle the account numbers into consistent and correct account type numbers before processing of the account data can be contemplated. This is a manual and static mapping (programming) effort that is not dynamically updated or maintained as new utilizations of the reporting structure are created or developed.

Much of the aforementioned problems with present COAs arise because each COA tends to be rigid and not capable of being reconfigured without high cost. Because these systems are not dynamic or robust, when account numbers must be organized or reorganized into correct account types by programming, an enterprise will have to spend excessive time and money to manipulate its chart of account data. Because these systems are not robust, accounts must be added often.

### **SUMMARY OF THE INVENTION**

Broadly speaking, the present invention fills these needs by providing a robust and dynamic organization of accounts in a chart of accounts (COA) to be used in connection with ERP systems. It should be appreciated that the present invention can be implemented in numerous ways, including as a process, an apparatus, a system, computer readable media, or a device. Several inventive embodiments of the present invention are described below.

In one embodiment, a method for generating a chart of accounts (COA) to be used in connection with an enterprise resource planning (ERP) system for a business is provided. In this embodiment, the method develops an infrastructure for a dynamic COA that is to be generated where the infrastructure includes defined accounting principles, specific reporting formats, and industry specific account definitions. Then the dynamic COA having accounts that are organized in accordance with a constant numbering system is generated where the constant numbering system includes each account of the COA without exceptions to the constant numbering system. Legacy accounts of a legacy COA

are then mapped to the accounts of the dynamic COA with each of the legacy accounts being associated with the accounts of the dynamic COA.

In another embodiment, a method for using a chart of accounts (COA) in connection with an enterprise resource planning (ERP) system for a business is disclosed. In this embodiment, the method provides a dynamic chart of accounts and then inputs a request for account information for a report into an enterprise resource planning (ERP) system. Then the dynamic chart of accounts is accessed to retrieve the requested account information. The requested account information is then retrieved by accessing the selected account information from an account database. The report having the requested account information organized in accordance with predefined rules defined by the dynamic chart of accounts is displayed where the displaying is presented by way of an interface rendered by the ERP system.

In another embodiment, a method for using a chart of accounts (COA) in connection with an enterprise resource planning (ERP) system for a business is disclosed. First, a dynamic chart of accounts is provided after which a change of account information is inputted into an enterprise resource planning (ERP) system. Then the dynamic chart of accounts is accessed. The change of account information is then associated with an account within an account database by utilizing a constant numbering system defined by the dynamic chart of accounts. Then the change of account information is written to the account database.

In yet another embodiment, a computer readable media having program instructions for generating a chart of accounts (COA) in connection with an enterprise resource planning (ERP) system for a business is disclosed. In this embodiment, an infrastructure for a dynamic COA that is to be generated is developed where the infrastructure includes defined accounting principles, specific reporting formats, and industry specific account definitions. The dynamic COA having accounts that are organized in accordance with a constant numbering system is generated where the constant numbering system includes each account of the COA without exceptions to the constant numbering system. Legacy accounts of a legacy COA are mapped to the accounts of the

dynamic COA with each of the legacy accounts being associated with the accounts of the dynamic COA.

In another embodiment, a computer readable media having program instructions for implementing a dynamic chart of accounts (COA) in connection with an enterprise resource planning (ERP) system for a business is disclosed. In this embodiment, a request for account information for a report is inputted into an enterprise resource planning (ERP) system. Then the dynamic chart of accounts is accessed to retrieve the requested account information. The requested account information is then retrieved by accessing the selected account information from an account database. The report having the requested account information organized in accordance with predefined rules defined by the dynamic chart of accounts is displayed where the displaying is presented by way of an interface rendered by the ERP system.

In one embodiment, a chart of accounts (COA) to be used in connection with an enterprise resource planning (ERP) system for a business is disclosed. The chart of accounts includes a plurality of account numbers and an account description for each of the plurality of account numbers. The chart of accounts also includes a level of detail for each of the plurality of account numbers and a posting edit code for each of the plurality of account numbers. The plurality of account numbers are organized in a spreadsheet format implementing a constant numbering system which includes each account of the COA without exceptions to the constant numbering system.

In another embodiment, a method for generating a chart of accounts (COA) to be used in connection with an enterprise resource planning (ERP) system for a business is provided. The method first develops an infrastructure for a dynamic COA that is to be generated where the infrastructure includes defined accounting principles, specific reporting formats, and industry specific account definitions. The dynamic COA having accounts that are organized in accordance with a constant numbering system is generated where the constant numbering system includes each account of the COA without exceptions to the constant numbering system. Legacy accounts of a legacy COA are mapped to the accounts of the dynamic COA with each of the legacy accounts being associated with the accounts of the dynamic COA. The accounts of the dynamic COA are

divided into general account classifications (GAC) with each particular GAC including accounts specific to the particular GAC. In addition, each particular GAC and each specific account follow the constant numbering system. The GAC includes assets, liabilities, stockholders' equity, revenue, cost of goods sold (COGS), adjustments to COGS, operating expenses, other income and expenses, and provisions for income tax.

The advantages of the present invention are numerous. Most notably, by creating a robust and dynamic chart of accounts (COA) and methods for using the same in connection with ERP systems, an organization's account data may be intelligently organized into categories that are flexible and expandable as the organization grows. The intelligent organization of account data is made possible by use of a constant numbering system without exception. This constant numbering system allows organization of accounts by hierarchical levels of detail which permits the easy and powerful management of accounts. In addition, the dynamic COA permits seamless interfacing to other data handling and presentation programs to allow business executives and analysts to easily, efficiently, and quickly visualize account data in many different ways.

Other aspects and advantages of the invention will become apparent from the following detailed description, taken in conjunction with the accompanying drawings, illustrating by way of example the principles of the invention.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

The present invention will be readily understood by the following detailed description in conjunction with the accompanying drawings, and like reference numerals designate like structural elements.

Figure 1 shows a tree diagram of data to be tracked by an exemplary ERP system.

Figure 2 shows a flowchart defining an overview of a process for generating and using a chart of accounts (COA) in accordance with one embodiment of the present invention.

Figure 3 shows a flowchart defining a generation of the dynamic COA in accordance with one embodiment of the present invention.



Figure 4 shows a flowchart defining a generation of the dynamic COA in accordance with one embodiment of the present invention.

Figure 5 shows a flowchart defining a level of detail hierarchy for each digit of the five digit of a five digit numbering system in accordance with one embodiment of the present invention.

Figure 6 shows a flowchart defining mapping of the COA of the legacy system to the dynamic COA in accordance with one embodiment of the present invention.

Figure 7 shows a flowchart defining a data mining of information associated with the dynamic COA using the ERP.

Figure 8 shows a flowchart defining the developing of an infrastructure for a dynamic COA.

Figure 9 shows a pyramid hierarchy describing the level of detail hierarchy in accordance with one embodiment of the present invention.

Figure 10 shows a level 3 chart of accounts (COA) in a spreadsheet format in accordance with one embodiment of the present invention.

Figure 11 shows a level 4 chart of accounts in a spreadsheet format in accordance with one embodiment of the present invention.

Figure 12 shows a level 5 chart of accounts in a spreadsheet format in accordance with one embodiment of the present invention.

Figure 13 shows a level 6 chart of accounts in a spreadsheet format in accordance with one embodiment of the present invention.

Figure 14 shows a level 7 chart of accounts in a spreadsheet format in accordance with one embodiment of the present invention.

### **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

An invention is described for a robust and dynamic chart of accounts (COA) and methods for using the same in connection with ERP systems. It will be obvious, however, to one skilled in the art, that the present invention may be practiced without some or all of

these specific details. In other instances, well known process operations have not been described in detail in order not to unnecessarily obscure the present invention.

In order to solve the problems of the prior art, the present invention, an IT solution, works with an ERP system to effectively manage and handle the different account types of a business or organization. In one embodiment, the COA is configured to seamlessly interface with an ERP system, such as OneWorld™ available from J.D. Edwards™. The COA is configured to be intelligently constructed to transform an organization's legacy account data into intelligently arranged categories that are flexible and expandable as the organization grows. It should be appreciated by one skilled in the art that the COA is flexible enough to be used, with minor modification, with any other ERP system, such as those made by SAP™, Oracle™, Peoplesoft™, Baan™, etc.

The organization of the COA enables users to efficiently perform data mining in an organized manner, and also enables fast and efficient report writing without additional programming. Thus, the COA enables seamless integration between a company's COA and ERP system. The focus of the present invention is to intelligently organize accounts and seamlessly interface to other data handling and presentation programs. The organization provides end users, such as company executives and officials, with on-demand access to critical company information (e.g., such as that required by specific SEC reporting rules). In the past, such information required extensive preparation by accounting professionals, programmers, and/or consultants. In one embodiment, the COA is designed to include specific accounts that are most relevant to a specific industry. One such industry is the emerging growth high-tech industry which requires specific accounts to enable fast and efficient report generation to meet specific reporting requirements, such as those set by the SEC and the like. The generation of the COA is therefore designed to be configured and customized for specific companies in a prompt and cost effective manner. This feature is particularly important to the aforementioned emerging growth companies that desire to transition to more sophisticated ERP systems.

In one embodiment, the ERP system and the COA will reside on one or more client specific servers which may be housed at an IT service provider such as, for example,

Exodus Communications, Inc. of Santa Clara, California. The COA works in concert with the ERP system to increase functionality by allowing the presentation of accounting data in a desired presentation manner. In one example operation, the OneWorld™ program is configured to work with the COA to generate desired accounting data into a desired form. As mentioned above, such form may be dictated by specific government reporting requirements.

Figure 2 shows a flowchart 200 defining an overview of a process for generating and using a chart of accounts (COA) in accordance with one embodiment of the present invention. It should be understood that the processes depicted in the flowchart 200 may be in a program instruction form written on any type of computer readable media. For instance, the program instructions can be in the form of software code developed using any suitable type of programming language. For completeness, the process flow of Figure 2 will illustrate an exemplary process whereby a desired report may be generated and displayed by implementing a dynamic COA to handle and organize accounting data that may be derived from a legacy system.

In initial operation 202, an infrastructure is analyzed for a business's legacy chart of accounts (COA). Operation 202 examines the business's legacy COA to find accounts and account numbers used by the business within its legacy COA. As defined herein, a COA is generally an account reference chart that shows account numbers associated with certain accounts. A legacy COA is typically a previously maintained COA depicting the business's account data (accounts and account numbers) in chart format. As mentioned in the background, prior art COAs do not follow any kind of strict numbering system or interrelationship.

After operation 202, the method proceeds to operation 203 where an infrastructure is developed for a dynamic COA by combining accounting standards with multiple previously built COAs to be integrated with the legacy COA. Operation 203 builds an infrastructure for a dynamic COA which can be integrated with the accounts within the legacy COA. In one embodiment, operation 203 examines text book accounting principles, SEC reporting formats, previously built industry specific COAs, and combines the accounts derived from those sources to create an infrastructure for a dynamic chart of

accounts. The industry specific COAs are previously built COAs that are related to the industry that the business is in. For example, if an infrastructure dynamic COA is being built for an Internet company, previously built COAs relevant to that particular industry will be examined. In this fashion, operation 203 builds an infrastructure that is flexible, specific, relevant, and expandable. Operation 203 will be explained further in reference to Figure 8.

After operation 203, the method continues to operation 204 where a dynamic COA is generated in a spreadsheet format, and the dynamic COA includes accounts for a business while following a constant numbering system without exception. Exemplary dynamic COAs are shown in table A and Figures 10, 11, 12, 13, and 14. The process of generating the dynamic COA is described in reference to Figure 3. The accounts within the dynamic COA (as obtained from previously built COAs and the business's legacy COA through operation 203) correspond to the types of accounts used by the business. For example, Table A (shown below) depicts all of the different accounts for a particular business. It should be appreciated that the accounts in Table A are exemplary in nature and any number or type of accounts may be used in a dynamic COA depending on the business requirements and/or specific industry.

The accounts of a dynamic COA are organized by a constant numbering system without exception so as to categorize the account types by hierarchical levels of detail (LOD). This constant numbering system achieves the organization by assigning categorical meanings to certain digits within an account number. By use of the constant numbering system without exception, all of the account types can be intelligently manipulated and handled to produce various forms of accounting reports.

The COA generated in operation 204 is dynamic because with each new dynamic COA generation, the COA grows by the addition of new and different accounts not previously contained by the previously built COAs. For example, a previously built industry specific COA may have 100 accounts before a new COA is generated for business A. The legacy COA for business A may contain 5 new accounts not previously contained within the previously built COA. Therefore, when the new dynamic COA is generated for business A by integrating the previously built COAs with the legacy COA, the dynamic

COA will contain the 100 accounts (from the previously built COAs) plus the additional 5 new accounts (from the legacy COA). Consequently, when a dynamic COA is generated for business B, the previously built COAs will have 105 accounts. In addition, when business A requires addition of a new account, the dynamic COA is dynamic enough to handle the additional account type information. As can be seen, the dynamic COAs are robust and are designed with the ability to continually grow and expand.

The method then proceeds to operation 206 where a name identification is customized for accounts used by the legacy system, and the dynamic COA retains generic accounts for future use as expansion requires. In operation 206, the name of the accounts within a dynamic COA template are changed to match the description of the corresponding accounts (of the same type) within the business legacy COA. For example, if a dynamic COA has an account for "bank-1" and the legacy COA has an account for "bank-SVB", the description of the account within the dynamic COA (i.e. bank-1) will be changed to reflect the description of the legacy COA (i.e. bank-SVB). During operation 206, if certain account types within the dynamic COA template are not used by the business at the time of the dynamic COA generation, the dynamic COA still retains the generic accounts for future use. Therefore, because of its robustness and flexibility, the dynamic COA has the ability to expand with a business as the business increases in size and complexity.

After operation 206, the method proceeds to operation 208 where the COA of the legacy system is mapped to the dynamic COA. Operation 208 copies account data from the legacy COA and associates such data with the accounts and the account numbers of the dynamic COA. This operation allows the dynamic COA to have access to the accounts contained within the legacy COA and creates a way for the easy account data updating and retrieval. Operation 208 is explained further in reference to Figure 6.

The method then continues to operation 210 where the dynamic COA contained in the spreadsheet is imported to an ERP solution. In this operation, the dynamic COA in spreadsheet format seamlessly interfaces with the ERP system so a user through the use of both the ERP system and the dynamic COA can examine, manipulate, and organize the accounts. In one embodiment, the dynamic COA in spreadsheet format may be directly manipulated and handled by a business using the ERP solution to customize its accounting

organization. It should be understood that the dynamic COA in spreadsheet format may be accessed in a number of ways such as through an ERP system, a spreadsheet program, etc. Exemplary dynamic COAs in spreadsheet format are shown in Table A, and Figures 10, 11, 12, 13, and 14. In one embodiment, the dynamic COA has four columns of account information. The first column states the object account number which is a specific and constant number assigned to certain types of accounts. The second column is the description of the account type corresponding to the object account number. The third column shows the level of detail of the account type shown. The level of detail will be fully explained below in reference to Figure 4. The fourth column shows the posting edit codes (PECs) which are described in more detail with reference to Figure 3. In general the posting edit codes describe what entries may be made to a certain account. It should be appreciated that the dynamic COAs may be presented in different formats such as a dynamic COA having more columns of account information, having additional types of account information, etc.

After operation 210, the method proceeds to operation 212 where data mine information is associated with the dynamic COA using the ERP. Operation 212 is explained in detail in reference to Figure 7. In operation 212, data mine information (information to be added to an account because of a transaction) is incorporated into the account database by use of the dynamic COA through data inputted or modified by way of the ERP system. In one embodiment, when a new transaction occurs and a business using the ERP system receives payment for a service provided previously, an accounts receivable (A/R) account is credited and a cash account is debited. In this operation, through the use of the constant numbering system in the dynamic COA and the mapping previously discussed, the ERP system is directed to the accounts to be updated. As can be seen, the robust and dynamic COA assists in easily and powerfully updating accounting information. In an alternative embodiment, with a static robust COA, pre-configuring the mapping of business transactions to their associated accounts greatly reduces the amount of customization needed to set up multiple ERP systems for different companies.

The method then proceeds to operation 214 where a desired report is generated in a desired format using the data mined information using ERP functionality. In operation

214, a report may be generated which includes the updated data mined account information in one of many different formats. In one embodiment, a business user may desire a report describing a business's accounts in level 3 detail (broadest account category)(see Figure 9). In the dynamic COA, the accounts in the broadest account category are also known as general account classifications (GAC). In this case, the ERP system obtains the account data from the database through the use of the dynamic COA and transmits the organized account data in level 3 detail to the business user. To retrieve level 3 account data, a dynamic COA such as one shown in Figure 10 may be used. In this exemplary dynamic COA, the GAC are shown which include the account categories assets, liabilities, stockholders' equity, revenue, cost of goods sold (COGS), adjustments to COGS, operating expenses, other income and expenses, and provision for income tax.

If the user would like to see more specific accounts within one of a GAC, a dynamic COA such as one shown in Figure 11 may be used by the ERP system to retrieve level 4 accounts. In this embodiment, level 4 accounts (sub-accounts of one of the GAC) are shown. For example, current assets, long-term investments, property plant & equipment, intangible assets, and other non-current assets are all level 4 accounts which in combination form "assets" which is one of the GAC. In a similar manner, accounts may be shown in level 5, 6, and 7 detail with use of the corresponding dynamic COAs as shown in Figures 12, 13, and 14.

As can be seen, in the exemplary dynamic COA of Table A, multiple levels of detail are used to create hierarchically structured accounts which can be easily classified and organized according to the level of specificity desired as well as following particular rules that are built into the structure of the dynamic COA. Thus, any business person would be able to manage accounting data in the macroscopic environment by using, for example, a level 3 dynamic COA, or manage accounting data in the microscopic environment by using, for example, a level 7 dynamic COA. The generated report from the use of the dynamic COA may be utilized for a variety of purposes such as for 10k's, balance sheets, income statements, or any other type of accounting or reporting statement. Consequently, the diverse functionality of the present invention makes it so robust that the dynamic COA can be used in a variety of business environments.

The method finally moves to operation 216 where the desired report is displayed for an end user. In operation 216, the desired report generated by operation 214 is displayed to one of many different types of users such as CFOs, controllers, department managers, stockholders, government agencies (e.g., SEC), or the like. In one embodiment, the end user (e.g., company employees) may be located offsite (e.g., away from the office, at a branch office, or any other location having network access) and may access the desired report, such as one used for SEC filing, on a processing and display program. As mentioned above, one example of a processing and display program may be OneWorld™. It should be appreciated that the desired report may be in any variety of formats depending on the business use for the report such as income statements, balance sheets, and the like. As can be seen, the dynamic COA with its constant numbering system may be used to easily manage and handle account data while at the same time being robust and powerful enough to be expanded and customized depending on the needs of a business or organization.

Figure 3 shows a flowchart 204 defining a generation of the dynamic COA in accordance with one embodiment of the present invention. In initial operation 218 a five digit numbering system is defined for a column of numbers of the dynamic COA that is defined in the spreadsheet format. In this operation, as can be seen in exemplary Table A and Figures 10, 11, 12, 13, and 14, five digit object account numbers are created in the first column of the dynamic COA. It should be appreciated that the numbering system may utilize any number of digits or characters as long as all types of accounts may be categorized coherently, efficiently, and constantly without exceptions. It should also be realized that the numbering system may be embedding within other digits and/or characters or may be utilized within another numbering scheme. For example, a five digit numbering system as exemplified herein may be embedded within a 25 character field which includes other types of business information. The account numbers may also be presented or formatted in different ways on the spreadsheet such as being organized by rows instead of columns. Operation 218 is discussed in further detail in reference to Figure 4.

After operation 218, the method proceeds to operation 220 where the column of



numbers is separated into general accounting classifications (GAC) with each of the GAC having the five digit numbering system and a first digit identifying each of the GAC. The GAC are major account types that contain all of the accounts for a business. As can be seen in Table A, and in Figure 10, the first digit of the exemplary numbering system ranges from 1 to 9 with each of the different digits representing different major account types (or GAC). For example, Figure 10 shows a level three COA where nine GAC are shown. The first of the GAC, assets, is represented by the number 1 in the first digit of the five digit number. The five digits are therefore a predetermined number in this example. The second of the GAC, liabilities, is shown by the number 2 in the first digit of the five digit number. As with the previous two examples, the first digits 3, 4, 5, 6, 7, 8, and 9 of the five digit number represent respectively the following of the GAC: stockholders' equity, revenue, cost of goods sold, adjustments to COGS, operating expenses, other income and expenses, and provision for income tax.

The method then proceeds to operation 222 where a level of detail (LOD) is associated for each digit of the five digits in a given number selected from the column of numbers with the given number belonging to any one of the GAC. As indicated above, table A shows an exemplary COA where the first digit of five represents the broadest account type category (GAC) while the fifth digit represents the most specific account type within the account category represented by the first digit.

For example, every digit of the object account number 11149 represents a level of detail of the account. The first digit in the object account number 11149 represents that the account is an assets account. The second digit of 11149 represents that the account is a current assets account. The third digit of 11149 represents that the account is a cash and bank deposits account. The fourth digit of 11149 represents that the account is a checking account. The fifth digit of 11149 represents that the account is a checking account-sweep account. As can be seen, each successive digit within the object account number represents a more specific account within the type of account represented by the digit before it. Additionally, in this numbering scheme, one account number is always used for a particular account so the dynamic COA will never have two account numbers with the same name or description, thus being strictly constant. If the legacy COA has for example,

two "accounts receivable" accounts with separate account numbers, both of those accounts will be mapped to one dynamic COA account number. Moreover, levels of detail increase in successive numerical steps and do not skip numbers. In one embodiment, a level 7 account must be a more specific account within (or a sub-account of) a level 6 account which is in turn a more specific account within a level 5 account. If a level 5 account exists and no level 6 accounts exist within the level 5 account, there cannot be a level 7 account which is a more specific account of the level 5 account. In such a case, the next sub-account of level 5 will be assigned a level 6 account number. By rigidly adhering to such an exemplary constant numbering system, the ERP system is able to data mine and retrieve accounting data in an organized and flexible manner, making report definition and database extraction easier to both develop and maintain. In prior art systems, the generation of reports typically requires excessive involvement by consultants and programmers to account for exceptions that are built into the COA.

After operation 222, the method proceeds to operation 224 where a default name identification is generated for each number in the column of numbers. The default name identification is the description derived from the previously built COAs used to create the infrastructure of the dynamic COA.

After operation 224, the method concludes with operation 226 where a posting edit code (PEC) is associated with each given number. Posting edit codes are letters which dictate what types of account entries the system will and will not accept. In one embodiment, an entry of "N" denotes that the specific account will not accept account entries at all. An entry of "M" shows that the specific account will accept only machine entries, and an entry of "L" illustrates that the account type will only accept account entries with sub-ledgers. An entry of "B" indicates that that the account type will only accept budget entries while an entry of "T" indicates that the account type is inactivated. "T"s are used once an account has recorded data within the account and the user no longer wishes to utilize that account, therefore, no accounts are labeled "T" in the template. If there is no entry in the PEC column, that account type will accept any type of account entry. For example, none of the GACs will accept account entries because the entries for the GAC accounts are the cumulative amount of their respective specific accounts (or sub-accounts).

Figure 4 shows a flowchart 218 defining a generation of the dynamic COA in accordance with one embodiment of the present invention. Initial operation 228 defines a level of detail (LOD) hierarchy for each digit of the five digits. As described above in reference to Figure 3 and below in reference to Figure 5, the LOD represented by the first digit is the broadest account category and increases in detail with the second, third, fourth, and fifth digits. The second digit represents an account category which is a sub-account of first digit account category. The third digit represents an account category which is a sub-account of the second digit account category and so on. After operation 228, the method concludes with operation 230 where a column of numbers are nested according to the LOD hierarchy within each defining category. For example, as can be seen in Figure 11, all accounts that are sub-accounts (account nos. 11000-19000) of assets (account no. 10000) are displayed before another major account is displayed. After all of the assets sub-accounts have been listed, then the next major account (i.e., GAC) such as, for example, liabilities (account no. 20000) is displayed. With this hierarchical organization, account types with certain levels of details can be retrieved easily.

Figure 5 shows a flowchart 228 defining a level of detail hierarchy for each digit of the five digit of a five digit numbering system in accordance with one embodiment of the present invention. In initial operation 232, a first digit of the five digits is defined to have a generic level of detail (LOD). The first digit represents one of the GAC of the dynamic COA which is one of the broadest account categories. After operation 232, the method proceeds to operation 234 where a second digit of the five digits is defined to have a more specific LOD than the first digit. The method then proceeds to operation 236 where a third digit of the five digits is defined to have a more specific LOD than the second digit. After operation 236, the method continues to operation 238 where a fourth digit of the five digits is defined to have a more specific LOD than the third digit. After operation 238, the method concludes with operation 240 where a fifth digit of the five digits is defined to have a more specific LOD than the fourth digit. One embodiment of the level of detail hierarchy can be seen in reference to Figure 3 above with regard to account number 11149. This robust organization of accounts allows for easy account manipulation when information regarding certain levels of accounts must be retrieved by a business during, for

example, preparation of an SEC mandated report. It should be understood that such efficient generation is made possible due to the COA structure which follows a defined infrastructure.

Figure 6 shows a flowchart 208 defining mapping of the COA of the legacy system to the dynamic COA in accordance with one embodiment of the present invention. In initial operation 242, a COA of the legacy system is scanned (manually by a person or by a computer) to identify name identifications associated with a general accounting classifications (GAC). As discussed above, name identifications are "descriptions" as displayed in one of the column headings in Table A and Figures 10-14. In operation 242, the legacy COA is examined to determine what account descriptions are given to accounts within a GAC. After operation 242, the method proceeds to operation 244 where a number and name identification is copied from the legacy system. Again, this and other operations of the mapping can be processed manually or in an automated manner. In operation 244, the account number and the description of the accounts within the GAC are copied. The method then proceeds to operation 246 where the number and name identification is pasted into a mapping table that associates the number and name identification of the legacy system to specific numbers of the dynamic COA. In this operation, the account from the legacy COA is associated to a number within the constant numbering system of the dynamic COA. After operation 246, the method continues to operation 248 which determines if there is another number for a current GAC. This operation makes sure that all of the account types and numbers from the legacy COA that is within a certain GAC have been mapped to specific account numbers in the dynamic COA. If there is another account number within the current GAC then the method returns to operation 244 and repeats operations 244, 246, and 248. Operation 252 represents the operation path when another account exists for the current GAC. In operation 252, the method proceeds to build mapping for the next GAC. After operation 252, the method repeats operations 242, 244, 246, and 248. Operation 250 represents the operation path when no other GAC exists. If operation 250 determines that there is no other GAC then the method terminates.

Figure 7 shows a flowchart 212 defining a data mining of information associated

with the dynamic COA using the ERP. In initial operation 254, a business transaction is processed within the ERP. In this operation, a business transaction, such as paying an invoice, is entered into the ERP system by, for example, an employee of an organization or business. The transaction must have a date, an account number and name, an amount of the transaction, and a description for the transaction to be recorded. After operation 254, the method proceeds to operation 255 where an account from a dynamic COA that is being requested by the ERP system is determined. In this operation, the specific account within the dynamic COA that is affected by the transaction is found by the ERP system using the dynamic COA. The method then proceeds to operation 256 where the account being requested from the dynamic COA that was imported into the ERP is validated. After operation 256, the method continues to operation 257 where the transaction is recorded against a validated account. In this operation, the update required by the transaction is processed where certain account entries are changed to reflect the transaction. In one embodiment, if a customer of a business pays an invoice, the business would need to credit an accounts receivable account (A/R) and debit a cash account. In this exemplary transaction, the accounts receivable account and the cash account would have to be updated by using the ERP system and the dynamic COA to revise the account data entries. The method then continues to operation 258 where a decision is made whether to process another transaction. If no other transactions exist then the method terminates, but if other transactions exist which have not been processed, the method repeats operations 254, 255, 256, 257, and 258. As can be seen, the dynamic COA allows easy data mining and the retrieval of that data mined information by keeping track of account categories through the constant numbering system.

Figure 8 shows a flowchart 203 defining the developing of an infrastructure for a dynamic COA. In initial operation 262, a legacy COA is provided. As stated above, a legacy COA is a previously maintained COA depicting the business's account data (through the account numbers and exceptions, and account names) in chart format. If a company is newly formed or does not have a COA, a company could begin recording its original business transactions utilizing the dynamic COA. After operation 262, the method proceeds to operation 264 which searches for a template dynamic COA built

incorporating account information of previously built dynamic COAs. As discussed above, the template (or infrastructure) dynamic COA is created from a combination of previously built COAs. Specifically, the accounts within the previously built COAs are incorporated into the dynamic COA template. The method then proceeds to operation 266 where the template dynamic COA is compared with the legacy COA to ascertain if the template dynamic COA includes each account in the legacy COA. Operation 266 determines whether the template dynamic COA has all of the accounts included within the legacy COA (i.e. all accounts used by the business). After operation 266, the method continues to operation 268 which determines if the template dynamic COA includes each account information of the legacy COA. If the template dynamic COA includes each account information of the legacy COA, the method terminates. If the template dynamic COA does include each account information of the legacy COA, the method proceeds to operation 270 where the legacy COA is combined with the template dynamic COA to generate a new dynamic COA. In operation 270, the account information contained by the legacy COA that is not in the dynamic COA template is obtained from the legacy COA and incorporated into the dynamic COA template utilizing the methodology depicted in Figures 2-7. After operation 270, the method terminates.

Figure 9 shows a pyramid hierarchy 300 describing the level of detail hierarchy in accordance with one embodiment of the present invention. The first level of the pyramid hierarchy 300 is level-1 302 showing the broadest level of detail. Level-1 302 includes all accounting data related to a particular company. In one embodiment, level-1 302 may refer to one company of many companies in a multi-company conglomerate or some other type of business organization which includes many different companies. The second level of the pyramid hierarchy 300 is level-2 304 showing accounting information for a business unit. Level-2 304 is a more detailed account type within the level-1 302 account category. Examples of level-2 304 are, for example, specialized divisions or departments of a business such as finance, human resources, payroll, manufacturing, distribution, and the like. The third level of the pyramid hierarchy 300 is level-3 306 which shows GAC (i.e., assets) within the level-2 304 business unit. The exemplary numbering system described above in reference to Table A and Figures 10-14 begin with the level-3 306 GAC. The

fourth level of the pyramid hierarchy is level-4 308 which depicts a sub-group of GAC (i.e., current assets). Current assets is a more specialized account type within assets. The fifth level of the pyramid hierarchy is level-5 310 which illustrates a sub-group of level-4 308 (i.e., cash and bank deposits). Cash and bank deposits is a more specialized account type included under the broader account type, current assets. The sixth level of the pyramid hierarchy is level-6 312 showing a sub-group of level 5 (i.e., checking account). The checking account is a more detailed account type within the broader account type, cash and bank deposits. The seventh level of the pyramid hierarchy is level-7 314 which shows a sub-group of level 6 (i.e., checking account - SVB, which is a specific type of checking account). The eighth and ninth levels of the pyramid hierarchy are level-8 316 and level-9 318 respectively. Both the eighth and ninth levels are reserved levels which may be used if additional account levels become necessary. It should be appreciated that the levels of the pyramid hierarchy 300 may represent any type of accounts such as assets, liabilities, revenue, and the like. The pyramid hierarchy 300 shows the coherent organization of accounts which helps the dynamic COA to manage the accounts in an easy but powerful way.

Figure 10 shows a level 3 chart of accounts (COA) in a spreadsheet format in accordance with one embodiment of the present invention. In this embodiment, the level 3 COA contains columns for an object account number, a description of the account, a level of detail of an account, and a posting edit code (PEC) for each of the GAC. The level 3 COA, in one exemplary embodiment, shows all of the GAC for a particular business as indicated by the object account number.

Figure 11 shows a level 4 chart of accounts in a spreadsheet format in accordance with one embodiment of the present invention. In this embodiment, the level 4 COA contains columns for an object account number, a description of the account, a level of detail of an account, and a posting edit code (PEC) for each account and each of the GAC. The level 4 COA shows the GAC which have a level of detail (LOD) 3 and the accounts with a LOD of 4. Therefore, this COA shows all of the GAC and all of the level 4 accounts.

Figure 12 shows a level 5 chart of accounts in a spreadsheet format in accordance

with one embodiment of the present invention. In this embodiment, the level 5 COA contains columns for an object account number, a description of the account, a level of detail of an account, and a posting edit code (PEC) for each account and each of the GAC. The level 5 COA shows the GAC which have an LOD of 3 and the accounts with a level of detail (LOD) 4 and 5.

Figure 13 shows a level 6 chart of accounts in a spreadsheet format in accordance with one embodiment of the present invention. In this embodiment, the level 6 COA contains columns for an object account number, a description of the account, a level of detail of an account, and a posting edit code (PEC) for each account and each of the GAC. The level 6 COA shows the GAC with an LOD of 3 and the accounts a LOD of 4, 5, and 6. Therefore, this COA shows all level 3 GAC, all of the level 4 accounts, level 5 accounts, and level 6 accounts.

Figure 14 shows a level 7 chart of accounts in a spreadsheet format in accordance with one embodiment of the present invention. In this embodiment, the level 7 COA contains columns for an object account number, a description of the account, a level of detail of an account, and a posting edit code (PEC) for each account and each of the GAC. In this example, the level 7 COA shows all of the GAC and all of the accounts for a particular business including level 4, 5, 6, and 7 accounts. For a complete exemplary representation, reference can be made to Table A.

**Table A**

<u>Obj Acct #</u>	<u>Description</u>	<u>LOD</u>	<u>PEC</u>
10000	Assets	3	N
11000	Current Assets	4	N
11100	Cash and Bank Deposits	5	N
11110	Restricted Cash	6	
11120	Cash Clearing Account	6	
11130	Cash in Bank	6	



11140	Checking Account	6	N
11142	Checking Account - Comerica	7	
11145	Checking Account - SVB	7	
11148	Checking Account - Sweep	7	
11150	Credit Card	6	
11160	Lockbox	6	
11170	Money Market Account	6	N
11173	Money Market Account-Comerica	7	
11177	Money Market Account-SVB	7	
11180	Payroll Account	6	
11190	Petty Cash	6	L
11200	Short-Term Investments	5	N
11210	Certificates of Deposit	6	
11220	Investment Account	6	
11230	Money Market Investment	6	
11240	Savings Account	6	
11250	Section 125 Account	6	
11260	Treasury Bills	6	
11270	Commercial Paper	6	
11290	Other Short-Term Investments	6	
11300	Accounts Receivable	5	N
11310	Accounts Receivable - Trade	6	M
11320	Accounts Receivable - Clearing	6	
11390	Accounts Receivable - Other	6	L
11395	Allow For Doubtful Accounts	6	

11400	Other Receivables	5	N
11410	Coop Receivable	6	
11420	Employee Advances	6	L
11430	Freight Receivable	6	
11440	Income Taxes Receivable	6	
11450	Interest Receivable	6	
11460	Miscellaneous Receivable	6	L
11470	Price Protection	6	
11480	Rebates Receivable	6	
11490	Vendors With Debit Balances	6	
11500	Notes Receivable - Current	5	N
11510	Notes Receivable - Current	6	
11520	Discounted Notes Receivable	6	
11530	Dishonored Notes Receivable	6	
11540	LT Notes - Current Portion	6	
11595	Allow For Notes Receivable	6	
11600	Inventory	5	N
11610	Raw Materials - Inventory	6	M
11620	Work In Process - Inventory	6	M
11630	Finished Goods - Inventory	6	M
11640	Consigned Inventory	6	
11645	Inventory - Clearing	6	
11650	Inventory - Consumable	6	
11655	Inventory - In Transit	6	
11660	Inventory - PCV	6	

11665	Inventory - Receipts In Route	6	
11670	Inventory - Return & Allow	6	
11675	Inventory Reserve - Obsolete	6	
11680	Inventory Reserve - Physical	6	
11685	Inventory Reserve - Slow-Move	6	
11690	Inventory Reserve - Valuation	6	
11695	Inventory - Suspense	6	
11700	Prepaid Expenses	5	N
11710	Prepaid Advertising	6	L
11720	Prepaid Insurance	6	L
11730	Prepaid Interest	6	L
11740	Prepaid Leases	6	L
11750	Prepaid Maintenance	6	L
11760	Prepaid Rent	6	L
11770	Prepaid Royalty/Patents	6	L
11780	Prepaid Taxes	6	L
11790	Prepaid - Other	6	L
11900	Other Current Assets	5	N
11910	Deferred Tax Benefit	6	
11920	Deposits	6	L
11990	Other Current Assets	6	
13000	Long-Term Investments	4	N
13100	Investments-Available For Sale	5	N
13110	Stocks-Available For Sale	6	
13120	Bonds-Available For Sale	6	

13130	Land-Available For Sale	6	
13300	Investments-Held To Maturity	5	N
13310	Stocks-Held To Maturity	6	
13320	Bonds-Held To Maturity	6	
13500	Long-Term Equity Investments	5	N
13510	Investment - Co A	6	
13520	Investment - Co B	6	
13530	Investment - Co C	6	
13900	Other Long-Term Investments	5	N
13910	Bond Retirement Sinking Fund	6	
13920	Capital Expenditure Fund	6	
13930	Investment In Unused Land	6	
13940	Investment In Unused Buildings	6	
13950	Officers Life Insurance CSV	6	
13990	Other Long-Term Investments	6	
15000	Property Plant & Equipment	4	N
15100	Prop Plant & Equip - Assets	5	N
15105	Land	6	
15110	Buildings	6	
15120	Capital Lease	6	
15130	Computers	6	
15140	Demo Equipment	6	
15145	Electronic Equipment	6	
15150	Furn & Fixtures	6	
15160	LH Improvements	6	

15165	Machinery & Equip	6	
15170	Office Equipment	6	
15175	Software	6	
15180	Tooling	6	
15185	Trade Show Booths	6	
15190	Vehicles	6	
15198	Assets At Vendors	6	
15500	Prop Plant & Equip - Accm Depr	5	N
15510	Buildings - Accm Depr	6	
15520	Capital Lease - Accm Depr	6	
15530	Computers - Accm Depr	6	
15540	Demo Equipment - Accm Depr	6	
15545	Electronic Equipment - Accm Depr	6	
15550	Furn & Fixtures - Accm Depr	6	
15560	LH Improvements - Accm Depr	6	
15565	Machinery & Equip - Accm Depr	6	
15570	Office Equipment - Accm Depr	6	
15575	Software - Accm Depr	6	
15580	Tooling - Accm Depr	6	
15585	Trade Show Booths - Accm Depr	6	
15590	Vehicles - Accm Depr	6	
15598	Assets At Vendors - Accm Depr	6	
15900	Construction In Progress	5	N
15910	Construction In Progress	6	
17000	Intangible Assets	4	N

17100	Goodwill	5	N
17110	Goodwill	6	
17195	Goodwill - Amort	6	
17200	Organization Costs	5	N
17210	Organization Costs	6	
17295	Organization Costs - Amort	6	
17300	Patents	5	N
17310	Patents	6	
17395	Patents - Amort	6	
17400	Trademarks	5	N
17410	Trademarks	6	
17495	Trademarks - Amort	6	
17900	Other Intangibles	5	N
17910	Other Intangibles	6	
17995	Other Intangibles - Amort	6	
19000	Other Non-Current Assets	4	N
19100	Notes Receivable - LT	5	N
19110	Notes Receivable - LT - Trade	6	
19190	Notes Receivable - LT - Other	6	
19900	Other Non-Current Assets	5	N
19910	Asset Clearing Account	6	
19920	Bond Issuance Costs	6	
19930	Cost Basis Investments	6	
19940	Deferred Tax Benefit - LT	6	
19950	Security Deposits	6	

19990	Other Non-Current Assets	6	
<b>20000</b>	<b>Liabilities</b>	<b>3</b>	<b>N</b>
21000	Current Liabilities	4	N
21100	Accounts Payable	5	N
21110	Accounts Payable - Trade	6	M
21111	Accounts Payable - Clearing	6	
21113	Accounts Payable - Clear - RMA	6	
21115	Accounts Payable - Credit Card	6	
21117	Accounts Payable - Discount	6	
21119	Accounts Payable - Other	6	L
21120	Accounts Payable - Logged Receipts	6	
21140	Receipts Not In Stock	6	
21150	Received Not Vouchered	6	
21180	Inter-Company Accounts	6	M
21200	Commercial Paper & ST Notes	5	N
21210	Commercial Paper	6	
21220	Short-Term Notes	6	
21230	Accrued Compensation	5	N
21240	Accrued Bonuses	6	L
21250	Accrued Commissions	6	L
21260	Accrued Salaries	6	
21270	Accrued Shift Premium	6	
21280	Accrued Overtime	6	
21290	Accrued Wages	6	
21295	Payroll Clearing	6	

21300	Accrued Employee Benefits	5	N
21310	Accrued Empl Insur - Health	6	
21320	Accrued Empl Insur - Other	6	
21330	Accrued Flex Spending Accts	6	
21340	Accrued Fringe Benefits	6	
21350	Accrued Incentive Plans	6	
21360	Accrued 401(k) & Stock Benefit	6	
21370	Accrued Tuition Reimbursement	6	
21380	Accrued Vacation/PTO	6	
21390	Accrued Workers Compensation	6	
21400	Payroll Taxes & Deductions	5	N
21410	Federal Tax Withheld	6	
21420	FICA Tax Payable	6	
21430	Garnishments Withheld	6	
21440	Local Tax Withheld	6	
21450	Medicare Tax Payable	6	
21460	State Tax Withheld	6	
21470	Unemployment Taxes	6	
21490	Other Payroll Taxes	6	
21500	Taxes Payable	5	N
21510	Federal Tax Liability	6	
21520	Local Tax Liability	6	
21530	Personal Property Tax Payable	6	
21540	Real Estate Tax Payable	6	
21550	State Sales & Use Tax Payable	6	



21560	State Tax Liability	6	
21590	Other Taxes Payable	6	
21600	Dividends Payable	5	N
21610	Dividends Payable - Common	6	
21620	Dividends Payable - Preferred	6	
21625	Deferred Revenue	5	N
21630	Deferred Revenue - Advances	6	
21640	Deferred Revenue - Deposits	6	
21650	Deferred Revenue - Maintenance	6	
21660	Deferred Revenue - Services	6	
21670	Deferred Revenue - Subscriptions	6	
21690	Deferred Revenue - Other	6	
21700	Current Portion LT Debt	5	N
21710	Current Portion Bonds Payable	6	
21720	Current Portion Capital Leases	6	
21730	Current Portion Deferred Taxes	6	
21740	Current Portion Notes Payable	6	
21750	Current Portion Warranty	6	
21790	Current Portion Other Debt	6	
21800	Other Accrued Liabilities	5	N
21810	Accrued Accounting Fees	6	
21820	Accrued Insurance	6	
21830	Accrued Interest	6	
21840	Accrued Leases	6	
21850	Accrued Legal Fees	6	

21860	Accrued Miscellaneous	6	L
21870	Accrued Outside Services	6	L
21880	Accrued Royalty Fees	6	
21890	Accrued Liabilities - Other	6	L
21900	Other Current Liabilities	5	N
21910	Acquisitions Accrual	6	
21920	Reserve Accrual	6	
21930	Suspense Account	6	
21990	Other Current Liabilities	6	
25000	Noncurrent Liabilities	4	N
25100	Long Term Debt	5	N
25110	Bonds Payable	6	
25120	Capital Leases	6	
25130	Notes Payable	6	
25190	Other Long Term Debt	6	L
25900	Other Non-Current Liabilities	5	N
25910	Deferred Revenue - LT	6	
25920	Deferred Tax Liability - LT	6	
25930	Intercompany Accounts - LT	6	
25940	Pension Costs - LT	6	
25950	Warranty - LT	6	
25990	Other Non-Current Liabilities	6	
<b>30000</b>	<b>Stockholders' Equity</b>	<b>3</b>	<b>N</b>
31000	Capital Stock	4	N
31100	Preferred Stock	5	N

31110	Preferred Stock - A	6	
31120	Preferred Stock - B	6	
31130	Preferred Stock - C	6	
31140	Preferred Stock - D	6	
31200	Common Stock	5	N
31210	Common Stock	6	
31220	Common Stock Subscribed	6	
31230	Subscriptions Receivable	6	
31300	Warrants	5	N
31310	Warrants - A	6	
31320	Warrants - B	6	
31330	Warrants - C	6	
31340	Warrants - D	6	
35000	Paid-In Capital	4	N
35100	Additional Paid-In Capital	5	N
35110	Preferred Stock - A - PIC	6	
35120	Preferred Stock - B - PIC	6	
35130	Preferred Stock - C - PIC	6	
35140	Preferred Stock - D - PIC	6	
35150	Common Stock - PIC	6	
35160	Treasury Stock - PIC	6	
35170	Stock Dividends - PIC	6	
35180	Expired Stock Options - PIC	6	
35190	Warrants - PIC	6	
37000	Contra Equity Accounts	4	N

37100	Loans Due From Stockholders	5	N
37110	Loans Due From Stockholders	6	L
39000	Retained Earnings	4	N
39100	Restricted Equity	5	N
39110	Treasury Stock	6	
39120	Unearned Restricted Stock	6	
39200	Retained Earnings	5	N
39210	Dividends Declared	6	
39220	Retained Earnings	6	
39300	Other Comprehensive Income	5	N
39310	Unrealized G(L) on Securities	6	
39320	Unrealized G(L) on Translation	6	
39999	Current Earnings	5	N
40000	Revenue	3	N
41000	Hardware	4	N
41100	Hardware - Product Group #1	5	B
41110	Product Group #1 - Item #1	6	
41120	Product Group #1 - Item #2	6	
41130	Product Group #1 - Item #3	6	
41140	Product Group #1 - Item #4	6	
41150	Product Group #1 - Item #5	6	
41160	Product Group #1 - Item #6	6	
41170	Product Group #1 - Item #7	6	
41180	Product Group #1 - Item #8	6	
41190	Product Group #1 - Other	6	

41200	Hardware - Product Group #2	5	B
41210	Product Group #2 - Item #1	6	
41220	Product Group #2 - Item #2	6	
41230	Product Group #2 - Item #3	6	
41240	Product Group #2 - Item #4	6	
41250	Product Group #2 - Item #5	6	
41260	Product Group #2 - Item #6	6	
41270	Product Group #2 - Item #7	6	
41280	Product Group #2 - Item #8	6	
41290	Product Group #2 - Other	6	
41300	Hardware - Product Group #3	5	B
41310	Product Group #3 - Item #1	6	
41320	Product Group #3 - Item #2	6	
41330	Product Group #3 - Item #3	6	
41340	Product Group #3 - Item #4	6	
41350	Product Group #3 - Item #5	6	
41360	Product Group #3 - Item #6	6	
41370	Product Group #3 - Item #7	6	
41380	Product Group #3 - Item #8	6	
41390	Product Group #3 - Other	6	
41400	Hardware - Product Group #4	5	B
41410	Product Group #4 - Item #1	6	
41420	Product Group #4 - Item #2	6	
41430	Product Group #4 - Item #3	6	
41440	Product Group #4 - Item #4	6	

41450	Product Group #4 - Item #5	6	
41460	Product Group #4 - Item #6	6	
41470	Product Group #4 - Item #7	6	
41480	Product Group #4 - Item #8	6	
41490	Product Group #4 - Other	6	
41500	Hardware - Product Group #5	5	B
41510	Product Group #5 - Item #1	6	
41520	Product Group #5 - Item #2	6	
41530	Product Group #5 - Item #3	6	
41540	Product Group #5 - Item #4	6	
41550	Product Group #5 - Item #5	6	
41560	Product Group #5 - Item #6	6	
41570	Product Group #5 - Item #7	6	
41580	Product Group #5 - Item #8	6	
41590	Product Group #5 - Other	6	
41600	Hardware - Product Group #6	5	B
41610	Product Group #6 - Item #1	6	
41620	Product Group #6 - Item #2	6	
41630	Product Group #6 - Item #3	6	
41640	Product Group #6 - Item #4	6	
41650	Product Group #6 - Item #5	6	
41660	Product Group #6 - Item #6	6	
41670	Product Group #6 - Item #7	6	
41680	Product Group #6 - Item #8	6	
41690	Product Group #6 - Other	6	

41700	Hardware - Product Group #7	5	B
41710	Product Group #7 - Item #1	6	
41720	Product Group #7 - Item #2	6	
41730	Product Group #7 - Item #3	6	
41740	Product Group #7 - Item #4	6	
41750	Product Group #7 - Item #5	6	
41760	Product Group #7 - Item #6	6	
41770	Product Group #7 - Item #7	6	
41780	Product Group #7 - Item #8	6	
41790	Product Group #7 - Other	6	
41800	Hardware - Product Group #8	5	B
41810	Product Group #8 - Item #1	6	
41820	Product Group #8 - Item #2	6	
41830	Product Group #8 - Item #3	6	
41840	Product Group #8 - Item #4	6	
41850	Product Group #8 - Item #5	6	
41860	Product Group #8 - Item #6	6	
41870	Product Group #8 - Item #7	6	
41880	Product Group #8 - Item #8	6	
41890	Product Group #8 - Other	6	
41900	Other Hardware Sales	5	
41920	Hardware Returns & Allow	5	
41950	Hardware Discounts	5	
42000	Software	4	N
42100	Software - Product Group #1	5	B

42110	Product Group #1 - Part #1	6	
42120	Product Group #1 - Part #2	6	
42130	Product Group #1 - Part #3	6	
42140	Product Group #1 - Part #4	6	
42150	Product Group #1 - Part #5	6	
42160	Product Group #1 - Part #6	6	
42170	Product Group #1 - Part #7	6	
42180	Product Group #1 - Part #8	6	
42190	Product Group #1 - Other	6	
42200	Software - Product Group #2	5	B
42210	Product Group #2 - Part #1	6	
42220	Product Group #2 - Part #2	6	
42230	Product Group #2 - Part #3	6	
42240	Product Group #2 - Part #4	6	
42250	Product Group #2 - Part #5	6	
42260	Product Group #2 - Part #6	6	
42270	Product Group #2 - Part #7	6	
42280	Product Group #2 - Part #8	6	
42290	Product Group #2 - Other	6	
42300	Software - Product Group #3	5	B
42310	Product Group #3 - Part #1	6	
42320	Product Group #3 - Part #2	6	
42330	Product Group #3 - Part #3	6	
42340	Product Group #3 - Part #4	6	
42350	Product Group #3 - Part #5	6	



42360	Product Group #3 - Part #6	6	
42370	Product Group #3 - Part #7	6	
42380	Product Group #3 - Part #8	6	
42390	Product Group #3 - Other	6	
42400	Software - Product Group #4	5	B
42410	Product Group #4 - Part #1	6	
42420	Product Group #4 - Part #2	6	
42430	Product Group #4 - Part #3	6	
42440	Product Group #4 - Part #4	6	
42450	Product Group #4 - Part #5	6	
42460	Product Group #4 - Part #6	6	
42470	Product Group #4 - Part #7	6	
42480	Product Group #4 - Part #8	6	
42490	Product Group #4 - Other	6	
42500	Software - Product Group #5	5	B
42510	Product Group #5 - Part #1	6	
42520	Product Group #5 - Part #2	6	
42530	Product Group #5 - Part #3	6	
42540	Product Group #5 - Part #4	6	
42550	Product Group #5 - Part #5	6	
42560	Product Group #5 - Part #6	6	
42570	Product Group #5 - Part #7	6	
42580	Product Group #5 - Part #8	6	
42590	Product Group #5 - Other	6	
42600	Software - Product Group #6	5	B

42610	Product Group #6 - Part #1	6	
42620	Product Group #6 - Part #2	6	
42630	Product Group #6 - Part #3	6	
42640	Product Group #6 - Part #4	6	
42650	Product Group #6 - Part #5	6	
42660	Product Group #6 - Part #6	6	
42670	Product Group #6 - Part #7	6	
42680	Product Group #6 - Part #8	6	
42690	Product Group #6 - Other	6	
42700	Software - Product Group #7	5	B
42710	Product Group #7 - Part #1	6	
42720	Product Group #7 - Part #2	6	
42730	Product Group #7 - Part #3	6	
42740	Product Group #7 - Part #4	6	
42750	Product Group #7 - Part #5	6	
42760	Product Group #7 - Part #6	6	
42770	Product Group #7 - Part #7	6	
42780	Product Group #7 - Part #8	6	
42790	Product Group #7 - Other	6	
42800	Software - Product Group #8	5	B
42810	Product Group #8 - Part #1	6	
42820	Product Group #8 - Part #2	6	
42830	Product Group #8 - Part #3	6	
42840	Product Group #8 - Part #4	6	
42850	Product Group #8 - Part #5	6	

42860	Product Group #8 - Part #6	6	
42870	Product Group #8 - Part #7	6	
42880	Product Group #8 - Part #8	6	
42890	Product Group #8 - Other	6	
42900	Other Software Sales	5	
42920	Software Returns & Allow	5	
42950	Software Discounts	5	
43000	Services	4	N
43100	Support Services	5	B
43110	Support Services #1	6	
43120	Support Services #2	6	
43130	Support Services #3	6	
43140	Support Services #4	6	
43150	Support Services #5	6	
43200	Professional Services	5	B
43210	Professional Services #1	6	
43220	Professional Services #2	6	
43230	Professional Services #3	6	
43240	Professional Services #4	6	
43250	Professional Services #5	6	
43300	Technical Services	5	B
43310	Technical Services #1	6	
43320	Technical Services #2	6	
43330	Technical Services #3	6	
43340	Technical Services #4	6	

43350	Technical Services #5	6	
43400	Maintenance Services	5	B
43410	Maintenance Services #1	6	
43420	Maintenance Services #2	6	
43430	Maintenance Services #3	6	
43440	Maintenance Services #4	6	
43450	Maintenance Services #5	6	
43900	Other Services Sales	5	
43920	Service Returns & Allow	5	
43950	Service Discounts	5	
44000	Royalty Income	4	N
44100	Franchise Fees	5	
44200	OEM Technology Fees	5	
44300	Partner Fees	5	
44400	Royalty Income	5	
44500	Subscription Income	5	
44900	Other Royalty Sales	5	
44920	Royalty Returns & Allow	5	
44950	Royalty Discounts	5	
49000	Other Revenues	4	N
49100	Other Revenue #1	5	
49200	Other Revenue #2	5	
49300	Other Revenue #3	5	
49900	Other Sales	5	
49920	Other Revenue Returns & Allow	5	

49950	Other Revenue Discounts	5	
<b>50000</b>	<b>Cost of Goods Sold</b>	<b>3</b>	<b>N</b>
51000	Hardware	4	N
51100	Hardware - Product Group #1	5	B
51110	Product Group #1 - Item #1	6	
51120	Product Group #1 - Item #2	6	
51130	Product Group #1 - Item #3	6	
51140	Product Group #1 - Item #4	6	
51150	Product Group #1 - Item #5	6	
51160	Product Group #1 - Item #6	6	
51170	Product Group #1 - Item #7	6	
51180	Product Group #1 - Item #8	6	
51190	Product Group #1 - Other	6	
51200	Hardware - Product Group #2	5	B
51210	Product Group #2 - Item #1	6	
51220	Product Group #2 - Item #2	6	
51230	Product Group #2 - Item #3	6	
51240	Product Group #2 - Item #4	6	
51250	Product Group #2 - Item #5	6	
51260	Product Group #2 - Item #6	6	
51270	Product Group #2 - Item #7	6	
51280	Product Group #2 - Item #8	6	
51290	Product Group #2 - Other	6	
51300	Hardware - Product Group #3	5	B
51310	Product Group #3 - Item #1	6	

51320	Product Group #3 - Item #2	6	
51330	Product Group #3 - Item #3	6	
51340	Product Group #3 - Item #4	6	
51350	Product Group #3 - Item #5	6	
51360	Product Group #3 - Item #6	6	
51370	Product Group #3 - Item #7	6	
51380	Product Group #3 - Item #8	6	
51390	Product Group #3 - Other	6	
51400	Hardware - Product Group #4	5	B
51410	Product Group #4 - Item #1	6	
51420	Product Group #4 - Item #2	6	
51430	Product Group #4 - Item #3	6	
51440	Product Group #4 - Item #4	6	
51450	Product Group #4 - Item #5	6	
51460	Product Group #4 - Item #6	6	
51470	Product Group #4 - Item #7	6	
51480	Product Group #4 - Item #8	6	
51490	Product Group #4 - Other	6	
51500	Hardware - Product Group #5	5	B
51510	Product Group #5 - Item #1	6	
51520	Product Group #5 - Item #2	6	
51530	Product Group #5 - Item #3	6	
51540	Product Group #5 - Item #4	6	
51550	Product Group #5 - Item #5	6	
51560	Product Group #5 - Item #6	6	

51570	Product Group #5 - Item #7	6	
51580	Product Group #5 - Item #8	6	
51590	Product Group #5 - Other	6	
51600	Hardware - Product Group #6	5	B
51610	Product Group #6 - Item #1	6	
51620	Product Group #6 - Item #2	6	
51630	Product Group #6 - Item #3	6	
51640	Product Group #6 - Item #4	6	
51650	Product Group #6 - Item #5	6	
51660	Product Group #6 - Item #6	6	
51670	Product Group #6 - Item #7	6	
51680	Product Group #6 - Item #8	6	
51690	Product Group #6 - Other	6	
51700	Hardware - Product Group #7	5	B
51710	Product Group #7 - Item #1	6	
51720	Product Group #7 - Item #2	6	
51730	Product Group #7 - Item #3	6	
51740	Product Group #7 - Item #4	6	
51750	Product Group #7 - Item #5	6	
51760	Product Group #7 - Item #6	6	
51770	Product Group #7 - Item #7	6	
51780	Product Group #7 - Item #8	6	
51790	Product Group #7 - Other	6	
51800	Hardware - Product Group #8	5	B
51810	Product Group #8 - Item #1	6	

51820	Product Group #8 - Item #2	6	
51830	Product Group #8 - Item #3	6	
51840	Product Group #8 - Item #4	6	
51850	Product Group #8 - Item #5	6	
51860	Product Group #8 - Item #6	6	
51870	Product Group #8 - Item #7	6	
51880	Product Group #8 - Item #8	6	
51890	Product Group #8 - Other	6	
51900	Other Hardware Sales	5	
51920	Hardware Returns & Allow	5	
51950	Hardware Discounts	5	
52000	Software	4	N
52100	Software - Product Group #1	5	B
52110	Product Group #1 - Part #1	6	
52120	Product Group #1 - Part #2	6	
52130	Product Group #1 - Part #3	6	
52140	Product Group #1 - Part #4	6	
52150	Product Group #1 - Part #5	6	
52160	Product Group #1 - Part #6	6	
52170	Product Group #1 - Part #7	6	
52180	Product Group #1 - Part #8	6	
52190	Product Group #1 - Other	6	
52200	Software - Product Group #2	5	B
52210	Product Group #2 - Part #1	6	
52220	Product Group #2 - Part #2	6	



52230	Product Group #2 - Part #3	6	
52240	Product Group #2 - Part #4	6	
52250	Product Group #2 - Part #5	6	
52260	Product Group #2 - Part #6	6	
52270	Product Group #2 - Part #7	6	
52280	Product Group #2 - Part #8	6	
52290	Product Group #2 - Other	6	
52300	Software - Product Group #3	5	B
52310	Product Group #3 - Part #1	6	
52320	Product Group #3 - Part #2	6	
52330	Product Group #3 - Part #3	6	
52340	Product Group #3 - Part #4	6	
52350	Product Group #3 - Part #5	6	
52360	Product Group #3 - Part #6	6	
52370	Product Group #3 - Part #7	6	
52380	Product Group #3 - Part #8	6	
52390	Product Group #3 - Other	6	
52400	Software - Product Group #4	5	B
52410	Product Group #4 - Part #1	6	
52420	Product Group #4 - Part #2	6	
52430	Product Group #4 - Part #3	6	
52440	Product Group #4 - Part #4	6	
52450	Product Group #4 - Part #5	6	
52460	Product Group #4 - Part #6	6	
52470	Product Group #4 - Part #7	6	

52480	Product Group #4 - Part #8	6	
52490	Product Group #4 - Other	6	
52500	Software - Product Group #5	5	B
52510	Product Group #5 - Part #1	6	
52520	Product Group #5 - Part #2	6	
52530	Product Group #5 - Part #3	6	
52540	Product Group #5 - Part #4	6	
52550	Product Group #5 - Part #5	6	
52560	Product Group #5 - Part #6	6	
52570	Product Group #5 - Part #7	6	
52580	Product Group #5 - Part #8	6	
52590	Product Group #5 - Other	6	
52600	Software - Product Group #6	5	B
52610	Product Group #6 - Part #1	6	
52620	Product Group #6 - Part #2	6	
52630	Product Group #6 - Part #3	6	
52640	Product Group #6 - Part #4	6	
52650	Product Group #6 - Part #5	6	
52660	Product Group #6 - Part #6	6	
52670	Product Group #6 - Part #7	6	
52680	Product Group #6 - Part #8	6	
52690	Product Group #6 - Other	6	
52700	Software - Product Group #7	5	B
52710	Product Group #7 - Part #1	6	
52720	Product Group #7 - Part #2	6	

52730	Product Group #7 - Part #3	6	
52740	Product Group #7 - Part #4	6	
52750	Product Group #7 - Part #5	6	
52760	Product Group #7 - Part #6	6	
52770	Product Group #7 - Part #7	6	
52780	Product Group #7 - Part #8	6	
52790	Product Group #7 - Other	6	
52800	Software - Product Group #8	5	B
52810	Product Group #8 - Part #1	6	
52820	Product Group #8 - Part #2	6	
52830	Product Group #8 - Part #3	6	
52840	Product Group #8 - Part #4	6	
52850	Product Group #8 - Part #5	6	
52860	Product Group #8 - Part #6	6	
52870	Product Group #8 - Part #7	6	
52880	Product Group #8 - Part #8	6	
52890	Product Group #8 - Other	6	
52900	Other Software Sales	5	
52920	Software Returns & Allow	5	
52950	Software Discounts	5	
53000	Services	4	N
53100	Support Services	5	B
53110	Support Services #1	6	
53120	Support Services #2	6	
53130	Support Services #3	6	

53140	Support Services #4	6	
53150	Support Services #5	6	
53200	Professional Services	5	B
53210	Professional Services #1	6	
53220	Professional Services #2	6	
53230	Professional Services #3	6	
53240	Professional Services #4	6	
53250	Professional Services #5	6	
53300	Technical Services	5	B
53310	Technical Services #1	6	
53320	Technical Services #2	6	
53330	Technical Services #3	6	
53340	Technical Services #4	6	
53350	Technical Services #5	6	
53400	Maintenance Services	5	B
53410	Maintenance Services #1	6	
53420	Maintenance Services #2	6	
53430	Maintenance Services #3	6	
53440	Maintenance Services #4	6	
53450	Maintenance Services #5	6	
53900	Other Services Sales	5	
53920	Service Returns & Allow	5	
53950	Service Discounts	5	
54000	Royalty Income	4	N
54100	Franchise Fees	5	

54200	OEM Technology Fees	5	
54300	Partner Fees	5	
54400	Royalty Income	5	
54500	Subscription Income	5	
54900	Other Royalty Sales	5	
54920	Royalty Returns & Allow	5	
54950	Royalty Discounts	5	
59000	Other Revenues	4	N
59100	Other Revenue #1	5	
59200	Other Revenue #2	5	
59300	Other Revenue #3	5	
59900	Other Sales	5	
59920	Other Revenue Returns & Allow	5	
59950	Other Revenue Discounts	5	
60000	Adjustments to COGS	3	N
61000	Freight & Shipping	4	N
61100	Freight - Credits	5	
61200	Freight - In	5	
61300	Freight - Out	5	
61400	Shipping Expenses	5	
62000	Inventory/Material Adjustments	4	N
62100	Inventory Obsolescence	5	
62200	Inventory Shrinkage	5	
62300	Inventory Slow Moving	5	
62400	Inventory Valuation	5	

62500	Materials Expensed	5	
62600	Scrap	5	
63000	Overhead	4	N
63100	Overhead - Facilities	5	
63200	Overhead - Labor	5	
63300	Overhead - Operations	5	
63400	Overhead - Parts	5	
63500	Overhead - Services	5	
63900	Overhead - Other	5	
64000	Franchise & Royalty Fees	4	N
64100	Franchise Fees	5	
64200	Royalty Fees	5	
65000	Variances	4	N
65100	Direct Labor Variance	5	
65200	Engineering Change Notice	5	
65300	Material Variances	5	N
65310	Cycle Count Variance	6	
65320	Inventory Adj - Book-to-Perpet	6	
65330	Inventory Adj - Physical	6	
65340	Invoice to PO Variance	6	
65390	Other Material Variances	6	
65400	Overhead Variance	5	
65500	Planned Variance	5	
65600	Purchase Price Variance	5	
65700	Rework Variance - Labors	5	N

65710	Rework Variance - Labor	6	
65720	Rework Variance - Materials	6	
65790	Rework Variance - Other	6	
65800	Standard Cost Variance	5	
65900	Variances - Other	5	
66000	Warranty	4	N
66100	Warranty - Labor	5	
66200	Warranty - Parts	5	
66300	Warranty - Reserve	5	
66400	Warranty - Upgrade Services	5	
66900	Warranty - Other	5	
69000	Other Adjustments to COGS	4	N
69100	COGS Reserves	5	
69200	Deferred COGS	5	
69300	Expedite Fees	5	
69400	International Fees	5	
69500	Manufacturer Rebates	5	
69600	Overhead - Corporate	5	
69700	Restock Fees	5	
69800	Software Duplication	5	
69900	Other Adjustments to COGS	5	
<b>70000</b>	<b>Operating Expenses</b>	<b>3</b>	<b>N</b>
71000	Personnel Expenses	4	N
71100	Compensation	5	N
71110	Bonuses	6	

71120	Commissions	6	
71130	Salaries	6	
71140	Wages	6	
71150	Wages - Overtime	6	
71160	Wages - Shift Premium	6	
71300	Employee Benefits	5	N
71310	Employee Insurance - Health	6	
71320	Employee Insurance - Other	6	N
71322	Dental Insurance	7	
71324	Disability Insurance	7	
71326	Life Insurance	7	
71328	Vision Insurance	7	
71330	Flexible Spending Accounts	6	
71340	Fringe Benefits	6	N
71343	Fringe Benefits - Non-Taxable	7	
71347	Fringe Benefits - Taxable	7	
71350	Incentive Plans	6	N
71353	Exec Incentive Plan	7	
71357	Profit Sharing	7	
71360	401(k) & Stock Benefits	6	N
71362	401(k) Contributions	7	
71365	Retiree Benefits	7	
71368	Stock Purchase Plan	7	
71370	Tuition Reimbursement	6	
71380	Vacation/PTO	6	



71390	Workers Compensation	6	
71500	Payroll Taxes & Deductions	5	N
71510	FICA Tax Contribution	6	
71520	Medicare Tax Contribution	6	
71530	Unemployment Taxes	6	
71590	Other Payroll Taxes	6	
71700	Recruiting	5	N
71710	Advertising - Employment	6	
71720	Employee Referral Bonuses	6	
71730	Employee Testing	6	
71740	Interviewing Expenses	6	
71750	Recruiter Placement Fees	6	
71760	Relocation Expenses	6	
71770	Visas & Work Permits	6	
71900	Other Personnel Expenses	5	N
71910	Association Membership Fees	6	
71920	Conference Registrations	6	
71930	Employee Education & Training	6	L
71940	Employee Relations	6	
71950	Personnel Meetings	6	
71960	Sales Meetings	6	
71970	Temporary Personnel	6	
71990	Other Personnel Expenses	6	
73000	Departmental Expenses (SG&A)	4	N
73100	Travel & Entrainment	5	N

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73110	T & E - Airline	6	L
73115	T & E - Entertainment	6	L
73120	T & E - Hotel	6	L
73125	T & E - Meals	6	L
73130	T & E - Mileage	6	L
73135	T & E - Parking	6	L
73140	T & E - Rental Cars	6	L
73145	T & E - Taxicabs	6	L
73150	T & E - Telephone	6	L
73155	T & E - Tolls	6	L
73160	T & E - Travel	6	L
73190	T & E - Other	6	L
73200	Outside Services	5	N
73210	Administration Services	6	N
73214	Bank Fees	7	
73216	Benefit Administration Fees	7	
73218	HR Processing Fees	7	
73222	Management Consulting Fees	7	
73226	Patent Filing	7	
73234	Regulatory Fees	7	
73238	Report Services	7	
73240	Consulting Services	6	N
73242	Consulting Services	7	
73245	Contract Labor	7	
73248	Instructor Fees	7	

73250	Outside Commissions	6	
73260	Professional Services	6	N
73261	Accounting Fees	7	
73263	Auditing Fees	7	
73265	Legal Fees	7	
73267	Tax Services	7	
73269	Other Professional Services	7	
73270	Service Providers	6	N
73273	Application Service Providers	7	
73277	Internet Service Providers	7	
73280	Service Clearing - Mfg	6	
73290	Other Outside Services	6	
73300	Marketing	5	N
73310	Advertising	6	N
73312	Advertising - Agency Fees	7	
73314	Advertising - Development	7	
73316	Advertising - Direct Mail	7	
73318	Advertising - Electronic	7	
73322	Advertising - Internet	7	
73324	Advertising - Printed Media	7	
73326	Advertising - Publications	7	
73328	Advertising - Radio & TV	7	
73329	Advertising - Other	7	
73330	Corporate Communications	6	
73340	Customer Relations	6	

73345	Demo Units	6	
73350	Marketing Research Costs	6	
73355	Promotions	6	
73360	Public Relations	6	
73370	Publications	6	
73375	Technical Printed Materials	6	
73380	Trade Shows	6	
73390	Other Marketing Expenses	6	
73400	Facilities	5	N
73410	Building Rent/Lease	6	
73415	Janitorial Services	6	
73420	Off-Site Storage	6	
73425	Office Moving Expenses	6	
73430	Security Services	6	
73440	Telephony Expenses	6	N
73443	Cable & Wiring	7	
73446	Calling Cards	7	
73449	Cellular Phones	7	
73452	Data Circuits	7	
73455	Frame Relay	7	
73458	Pagers	7	
73461	Telephone	7	
73464	Telephone Equipment	7	
73467	Voicemail	7	
73469	Other Telephony Expenses	7	

73470	Utilities	6	N
73474	Electricity	7	
73478	Gas	7	
73482	Garbage	7	
73486	Sewer	7	
73488	Water	7	
73490	Other Facilities Expenses	6	
73500	Office Expenses	5	N
73510	Computer Supplies	6	N
73512	Computer Software	7	
73515	Computer Software Licenses	7	
73518	Computer Supplies	7	
73520	Dues & Subscriptions	6	N
73523	Corporate Membership Dues	7	
73527	Subscriptions	7	
73530	Internal Use - Inventory	6	
73540	Office Supplies	6	
73550	Printing/Reproduction	6	
73560	Production Supplies	6	
73565	Production Tools & Set Up	6	
73570	Shipping Expenses	6	N
73572	Courier Services	7	
73574	Freight	7	
73576	Overnight Delivery	7	
73578	Postage	7	

73579	Other Shipping Expenses	7	
73580	Small Equipment & Tools	6	
73590	Other Office Expenses	6	
73600	Equipment Expenses	5	N
73610	Computer Equipment	6	N
73612	Computer Hardware	7	
73615	Computer Maintenance	7	
73618	Computer Rental/Leasing	7	
73620	Equipment Rental/Leasing	6	
73630	Furniture & Fixtures	6	
73640	Maintenance Contracts	6	
73650	Office Equipment	6	
73660	Production Equipment	6	
73670	Repairs & Maintenance	6	
73680	Technical Support	6	
73700	Research and Development	5	N
73710	Beta Expenses	6	N
73714	Beta Customer Service	7	
73718	Beta Parts	7	
73722	Beta Resale Inventory	7	
73726	Beta Rework	7	
73734	Beta Scrap	7	
73740	Patent Fees	6	
73750	Prototype Expenses	6	N
73754	Prototype Certification	7	

73758	Prototype Design	7	
73762	Prototype Parts	7	
73766	Prototype Resale Inventory	7	
73774	Prototype Rework	7	
73778	Prototype Scrap	7	
73780	Test Equipment	6	L
73900	Other SG&A	5	N
73910	Bank & Credit Card Fees	6	
73920	Data Processing Charges	6	
73930	Directors Fees	6	
73940	Donations	6	
73950	Filing Fees	6	N
73953	Government Filing Fees	7	
73957	Licenses & Permits	7	
73960	Insurance	6	N
73962	D&O Liability Insurance	7	
73964	General Liability Insurance	7	
73966	Life Insurance - Officers	7	
73968	Property Insurance	7	
73969	Other Insurance	7	
73970	Miscellaneous Expenses	6	
73980	Taxes	6	N
73982	Personal Property Tax	7	
73984	Real Estate Tax	7	
73986	State Sales & Use Tax	7	

73989	Taxes - Other	7	
73990	Other SG&A	6	
77000	Other Expenses	4	N
77100	Depreciation & Amortization	5	N
77110	Depreciation	6	N
77114	Buildings - Depr	7	
77118	Capital Lease - Depr	7	
77122	Computers - Depr	7	
77126	Demo Equipment - Depr	7	
77128	Electronic Equipment - Depr	7	
77134	Furn & Fixtures - Depr	7	
77138	LH Improvements - Depr	7	
77142	Machinery & Equip - Depr	7	
77146	Office Equipment - Depr	7	
77152	Software - Depr	7	
77154	Tooling - Depr	7	
77156	Trade Show Booths - Depr	7	
77158	Vehicles - Depr	7	
77159	Other Depr	7	
77160	Amortization	6	N
77166	Goodwill - Amort	7	
77172	Patents - Amort	7	
77178	Trademarks - Amort	7	
77184	Organization Costs - Amort	7	
77190	Other Intangibles - Amort	7	



77200	Bad Debt	5	
79000	Allocations	4	N
79100	Allocations In & Out	5	N
79110	Allocations In	6	
79120	Allocations Out	6	
79200	Functional Allocations	5	N
79210	Applied Labor	6	
79220	Applied Overhead	6	
79230	Benefits Allocation	6	
79240	Capital Charge Allocation	6	
79250	Facilities Allocation	6	
79260	Postage Allocations	6	
79270	Telephone Allocations	6	
79290	Other Allocations	6	
80000	<b>Other Income &amp; Expenses</b>	3	N
81000	Other Income	4	N
81100	Cash Over (Short)	5	
81200	Coop Credits	5	
81300	Discounts Earned	5	
81400	Dividend Income	5	
81500	Equity in Unconsolidated Co	5	
81600	Gains & (Losses)	5	N
81610	G(L) - Cash Clearing	6	
81620	G(L) - Disposal of Fixed Asset	6	
81630	G(L) - Foreign Exchange	6	

81640	G(L) - Net Book Value	6	
81650	G(L) - Proceeds From Disposal	6	
81700	Interest Income	5	
81900	Other Miscellaneous Income	5	
82000	Other Expenses	4	N
82100	Capital Charge	5	
82200	Cash Discounts Lost	5	
82300	Interest Expense	5	
82900	Other Miscellaneous Expense	5	
<b>90000</b>	<b>Provision For Income Tax</b>	<b>3</b>	<b>N</b>
91000	Federal Income Tax	4	
92000	Local Income Tax	4	
93000	State Income Tax	4	

The invention may employ various computer-implemented operations involving data stored in computer systems. These operations are those requiring physical manipulation of physical quantities. Usually, though not necessarily, these quantities take the form of electrical or magnetic signals capable of being stored, transferred, combined, compared, and otherwise manipulated. Further, the manipulations performed are often referred to in terms, such as producing, identifying, determining, or comparing.

Any of the operations described herein that form part of the invention are useful machine operations. The invention also relates to a device or an apparatus for performing these operations. The apparatus may be specially constructed for the required purposes, or it may be a general purpose computer selectively activated or configured by a computer program stored in the computer. In particular, various general purpose machines may be used with computer programs written in accordance with the teachings herein, or it may be

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more convenient to construct a more specialized apparatus to perform the required operations.

The invention can also be embodied as computer readable code on a computer readable medium. The computer readable medium is any data storage device that can store data which can be thereafter be read by a computer system. Examples of the computer readable medium include read-only memory, random-access memory, CD-ROMs, CD-Rs, CD-RWs, magnetic tapes, and other optical data storage devices. The computer readable medium can also be distributed over a network coupled computer systems so that the computer readable code is stored and executed in a distributed fashion.

Although the foregoing invention has been described in some detail for purposes of clarity of understanding, it will be apparent that certain changes and modifications may be practiced within the scope of the appended claims. Accordingly, the present embodiments are to be considered as illustrative and not restrictive, and the invention is not to be limited to the details given herein, but may be modified within the scope and equivalents of the appended claims.

*What is claimed is:*

Claims

1. A method for generating a chart of accounts (COA) to be used in connection with an enterprise resource planning (ERP) system for a business, comprising:

developing an infrastructure for a dynamic COA that is to be generated, the infrastructure including defined accounting principles, specific reporting formats, and industry specific account definitions;

generating the dynamic COA having accounts that are organized in accordance with a constant numbering system, the constant numbering system including each account of the COA without exceptions to the constant numbering system; and

mapping legacy accounts of a legacy COA to the accounts of the dynamic COA, each of the legacy accounts being associated with the accounts of the dynamic COA.

2. A method for generating a chart of accounts (COA) as recited in claim 1, further comprising:

dividing the accounts of the dynamic COA into general account classifications (GAC), each particular GAC including accounts specific to the particular GAC, and each particular GAC and each specific account following the constant numbering system.

3. A method for generating a chart of accounts (COA) as recited in claim 1, wherein the accounting principles include text book accounting principles, the specific reporting formats include securities and exchange (SEC) reporting formats, and the industry specific account definitions include previously built industry specific COAs.

4. A method for generating a chart of accounts (COA) as recited in claim 3, wherein the developing of the infrastructure includes:

incorporating the text book accounting principles;

incorporating the SEC reporting formats;

referencing the previously built industry specific COAs; and

combining information the incorporated text book accounting principles, the SEC reporting formats, the referenced previously built industry specific COAs, and the legacy COA, the combining being configured to develop the infrastructure for the dynamic COA.

5. A method for generating a chart of accounts (COA) as recited in claim 1, wherein each of the accounts organized in accordance with the constant numbering system is associated with a predefined number of digits, a first digit of the predefined number of digits identifying a general account classification (GAC), and digits following the first digit defining specific levels of detail (LOD) for the dynamic COA.

6. A method for generating a chart of accounts (COA) as recited in claim 1, wherein the mapping of the legacy accounts of the legacy COA includes,

identifying an account from the legacy COA;

copying the account from the legacy COA, the account from the legacy COA including a custom definition and a legacy account number;

identify an account in the dynamic COA to be associated with the copied account;  
and

pasting the copied account in association with the account of the dynamic COA so as to map the account from the legacy COA to the account of the dynamic COA.

7. A method for generating a chart of accounts (COA) as recited in claim 6, further comprising:

renaming an account name of the dynamic COA to correspond to a legacy name of the account of the legacy COA.

8. A method for generating a chart of accounts (COA) as recited in claim 5, wherein the GAC includes assets, liabilities, stockholders' equity, revenue, cost of goods sold (COGS), adjustments to COGS, operating expenses, other income and expenses, and provisions for income tax.

9. A method for generating a chart of accounts (COA) as recited in claim 5, wherein the level of detail increases by successive numbers.

10. A method for generating a chart of accounts (COA) as recited in claim 8, wherein the assets has a number 1 as the first digit of the predetermined number of digits, the liabilities has a number 2 as the first digit of the predetermined number of digits, the stockholders' equity has a number 3 as the first digit of the predetermined number of digits, the revenue has a number 4 as the first digit of the predetermined number of digits, the cost of goods sold has a number 5 as the first digit of the predetermined number of digits, the adjustments to COGS has a number 6 as the first digit of the predetermined number of digits, the operating expenses has a number 7 as the first digit of the predetermined number of digits, the other income and expenses has a number 8 as the first digit of the predetermined number of digits, and the provisions for income has a number 9 as the first digit of the predetermined number of digits.

11. A method for using a chart of accounts (COA) in connection with an enterprise resource planning (ERP) system for a business, comprising:

providing a dynamic chart of accounts;

inputting a request for account information for a report into an enterprise resource planning (ERP) system;

accessing the dynamic chart of accounts to retrieve the requested account information;

retrieving the requested account information by accessing the selected account information from an account database; and

displaying the report having the requested account information organized in accordance with predefined rules defined by the dynamic chart of accounts, the displaying being presented by way of an interface rendered by the ERP system.

12. A method for using a chart of accounts (COA) as recited in claim 11, wherein each account in the dynamic chart of accounts follows a constant numbering system without exceptions.

13. A method for using a chart of accounts (COA) as recited in claim 12, wherein the accounts in the dynamic chart of accounts are divided into a plurality of general account classifications (GAC), each of the GAC having accounts specific to GAC.

14. A method for using a chart of accounts (COA) as recited in claim 11, wherein the dynamic chart of accounts is defined by an infrastructure that includes accounting principles, specific reporting formats, and industry specific account definitions.

15. A method for using a chart of accounts (COA) as recited in claim 14, wherein the accounting principles include text book accounting principles, the specific reporting formats include securities and exchange (SEC) reporting formats, and the industry specific account definitions include previously built industry specific COAs.

16. A method for using a chart of accounts (COA) as recited in claim 14, wherein the infrastructure is developed by:

incorporating the text book accounting principles;

incorporating the SEC reporting formats;

referencing the previously built industry specific COAs; and

combining information the incorporated text book accounting principles, the SEC reporting formats, the referenced previously built industry specific COAs, and a legacy COA, the combining being configured to develop the infrastructure for the dynamic COA.

17. A method for using a chart of accounts (COA) as recited in claim 12, wherein each of the accounts having the constant numbering system is associated with a predefined number of digits, a first digit of the predefined number of digits identifying a general account classification (GAC), and digits following the first digit defining specific levels of detail (LOD) for the dynamic COA.

18. A method for using a chart of accounts (COA) as recited in claim 17, wherein the GAC includes assets, liabilities, stockholders' equity, revenue, cost of goods sold (COGS), adjustments to COGS, operating expenses, other income and expenses, and provisions for income tax.

19. A method for using a chart of accounts (COA) as recited in claim 17, wherein the LOD increases by successive numbers.

20. A method for using a chart of accounts (COA) as recited in claim 18, wherein the assets has a number 1 as a first digit of a predetermined number of digits, the liabilities has a number 2 as a first digit of a predetermined number of digits, the stockholders' equity has a number 3 as a first digit of a predetermined number of digits, the revenue has a number 4 as a first digit of a predetermined number of digits, the cost of goods sold has a number 5 as a first digit of a predetermined number of digits, the adjustments to COGS has a number 6 as a first digit of a predetermined number of digits, the operating expenses has a number 7 as a first digit of a predetermined number of digits, the other income and expenses has a number 8 as a first digit of a predetermined number of digits, and the provisions for income has a number 9 as a first digit of a predetermined number of digits.

21. A method for using a chart of accounts (COA) in connection with an enterprise resource planning (ERP) system for a business, comprising:

providing a dynamic chart of accounts;

inputting a change of account information into an enterprise resource planning (ERP) system;

accessing the dynamic chart of accounts;

associating the change of account information with an account within an account database by utilizing a constant numbering system defined by the dynamic chart of accounts; and

writing the change of account information to the account database.

22. A method for using a chart of accounts (COA) as recited in claim 21, wherein each account in the dynamic chart of accounts follows the constant numbering system without exceptions.



23. A method for using a chart of accounts (COA) as recited in claim 22, wherein the accounts in the dynamic chart of accounts are divided into a plurality of general account classifications (GAC), each of the GAC having accounts specific to GAC.

24. A method for using a chart of accounts (COA) as recited in claim 21, wherein the dynamic chart of accounts is defined by an infrastructure that includes accounting principles, specific reporting formats, and industry specific account definitions.

25. A chart of accounts (COA) to be used in connection with an enterprise resource planning (ERP) system for a business, comprising:

a plurality of account numbers;

an account description for each of the plurality of account numbers;

a level of detail for each of the plurality of account numbers; and

a posting edit code for each of the plurality of account numbers;

wherein the plurality of account numbers are organized in a spreadsheet format implementing a constant numbering system, the constant numbering system including each account of the COA without exceptions to the constant numbering system.

26. A chart of accounts (COA) to be used in connection with an enterprise resource planning (ERP) system for a business as recited in claim 25, wherein each of the plurality of account numbers organized in accordance with the constant numbering system is associated with a predefined number of digits, a first digit of the predefined number of digits identifying a general account classification (GAC), and digits following the first digit defining specific levels of detail (LOD) for the COA.

27. A chart of accounts (COA) to be used in connection with an enterprise resource planning (ERP) system for a business as recited in claim 26 wherein the GAC includes assets, liabilities, stockholders' equity, revenue, cost of goods sold (COGS), adjustments to COGS, operating expenses, other income and expenses, and provisions for income tax.

28. A method for generating a chart of accounts (COA) to be used in connection with an enterprise resource planning (ERP) system for a business, comprising:

developing an infrastructure for a dynamic COA that is to be generated, the infrastructure including defined accounting principles, specific reporting formats, and industry specific account definitions;

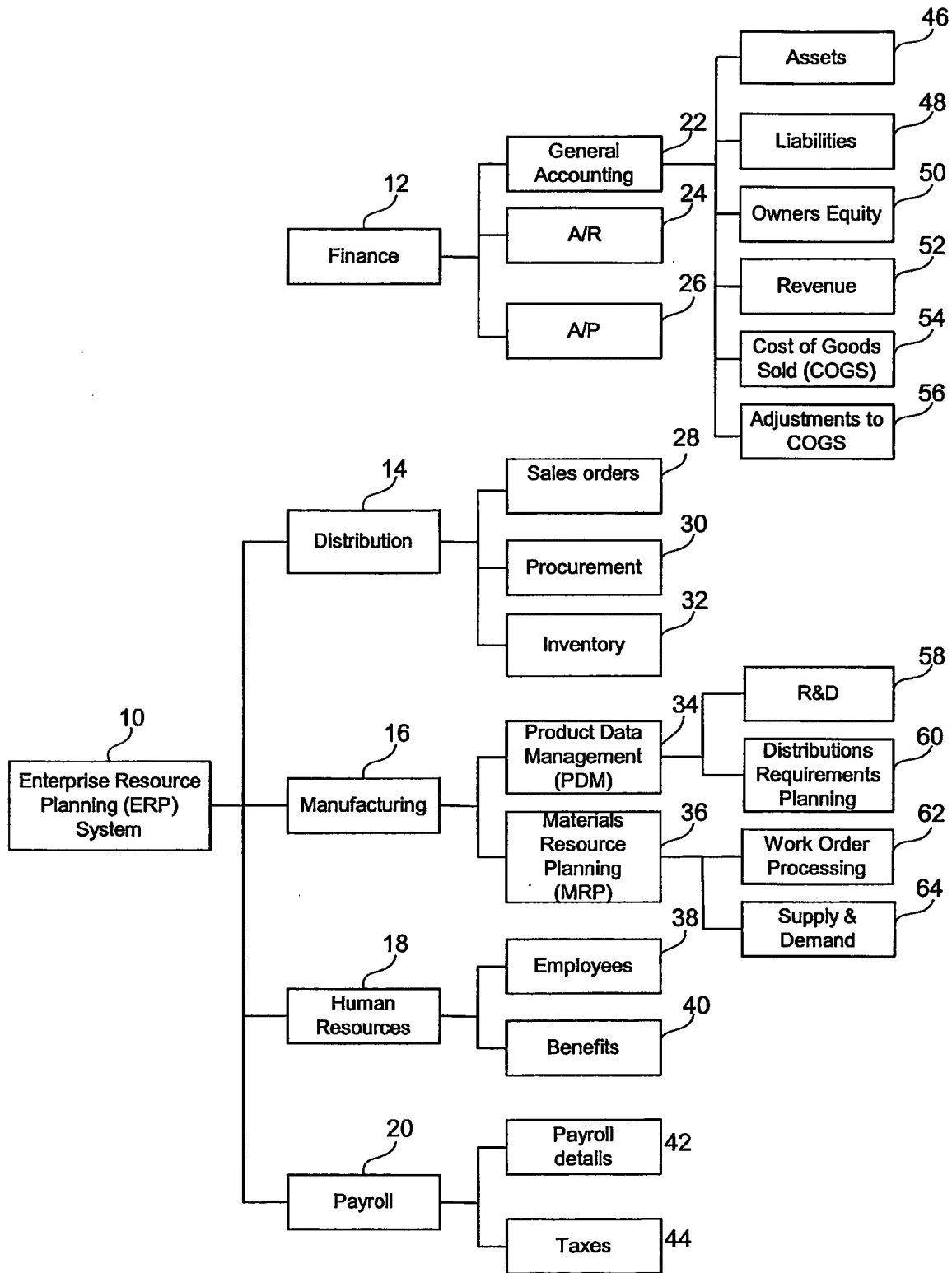
generating the dynamic COA having accounts that are organized in accordance with a constant numbering system, the constant numbering system including each account of the COA without exceptions to the constant numbering system;

mapping legacy accounts of a legacy COA to the accounts of the dynamic COA, each of the legacy accounts being associated with the accounts of the dynamic COA; and

dividing the accounts of the dynamic COA into general account classifications (GAC), each particular GAC including accounts specific to the particular GAC, and each particular GAC and each specific account following the constant numbering system;

wherein the GAC includes assets, liabilities, stockholders' equity, revenue, cost of goods sold (COGS), adjustments to COGS, operating expenses, other income and expenses, and provisions for income tax.

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**FIG. 1**  
(Prior Art)

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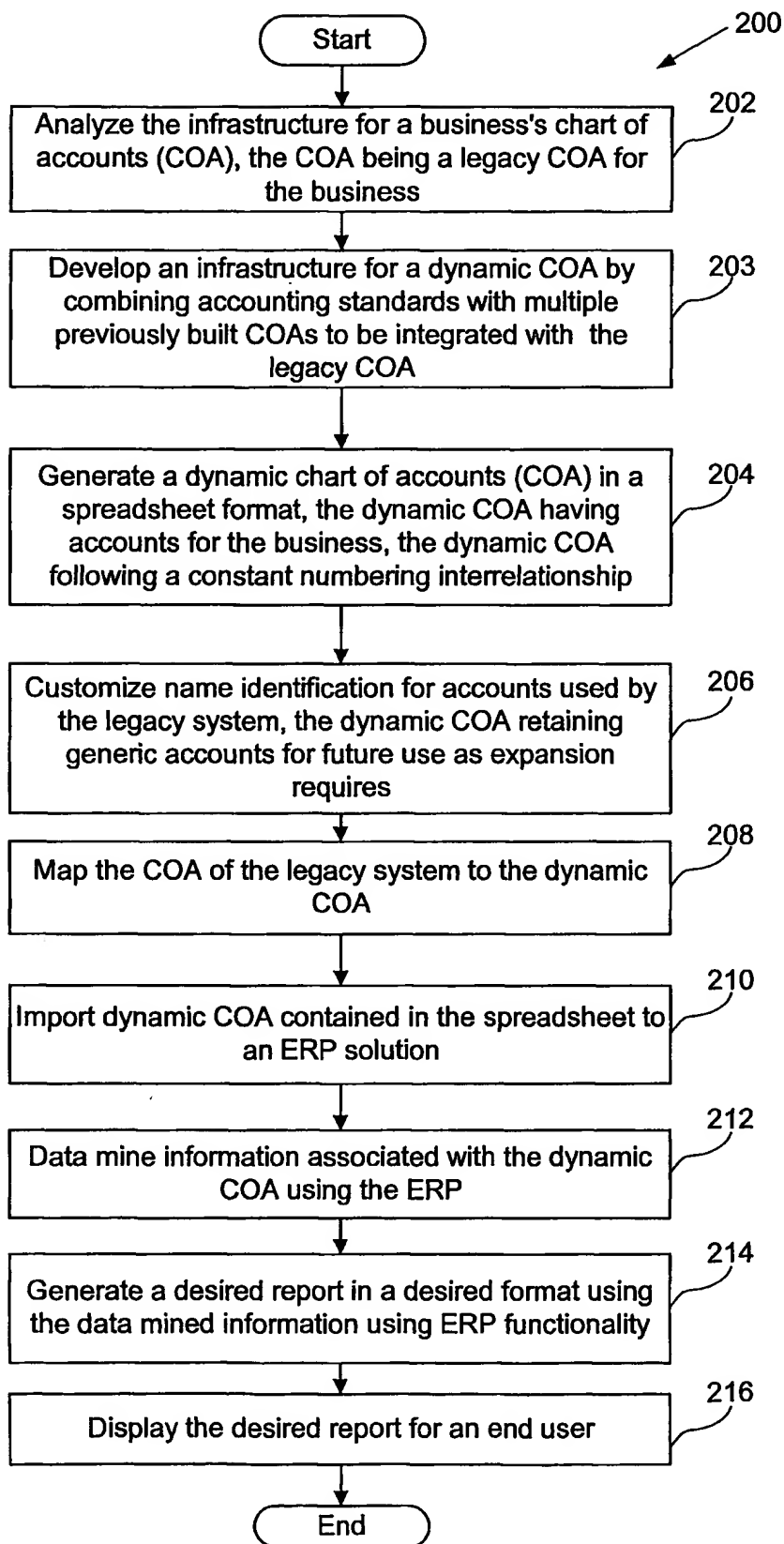


FIG. 2

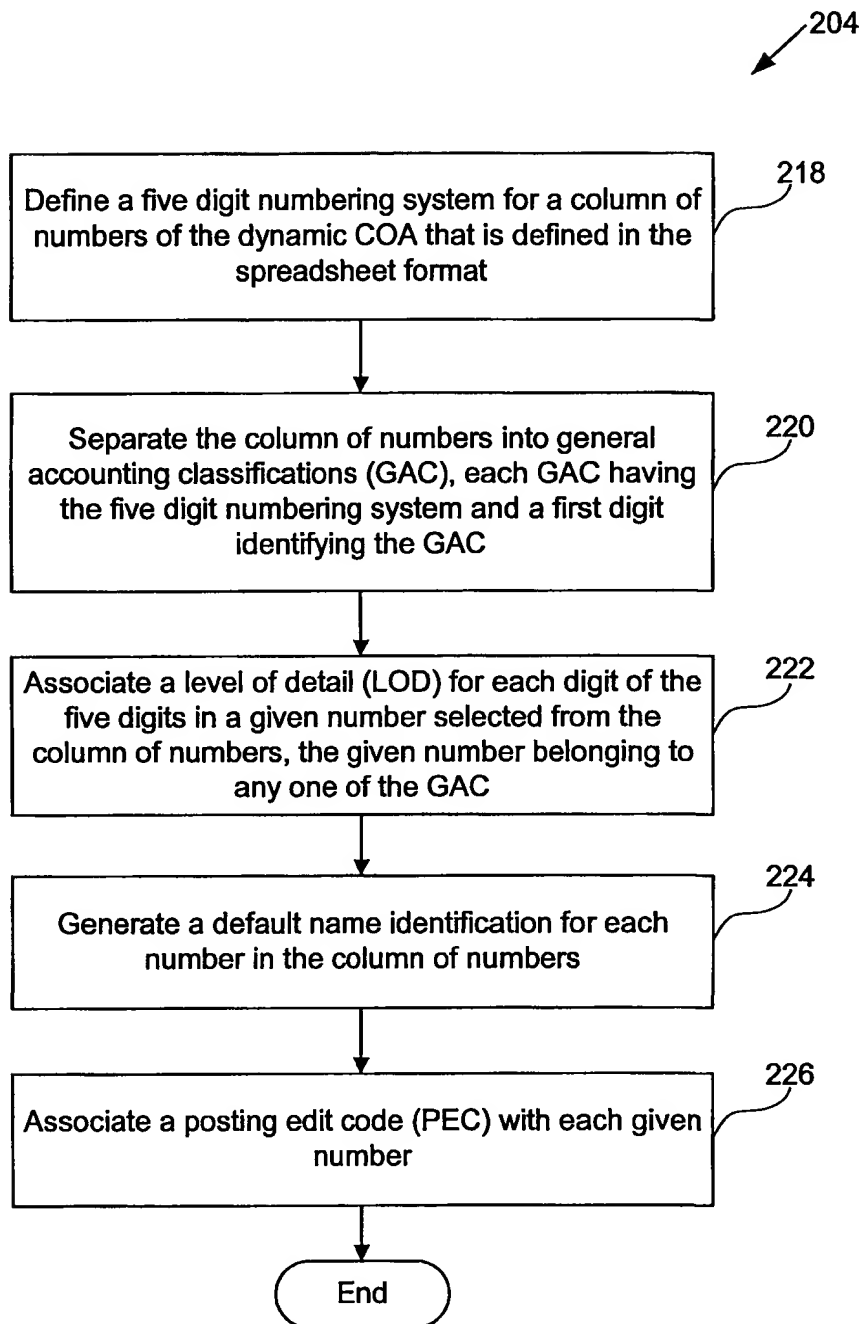


FIG. 3

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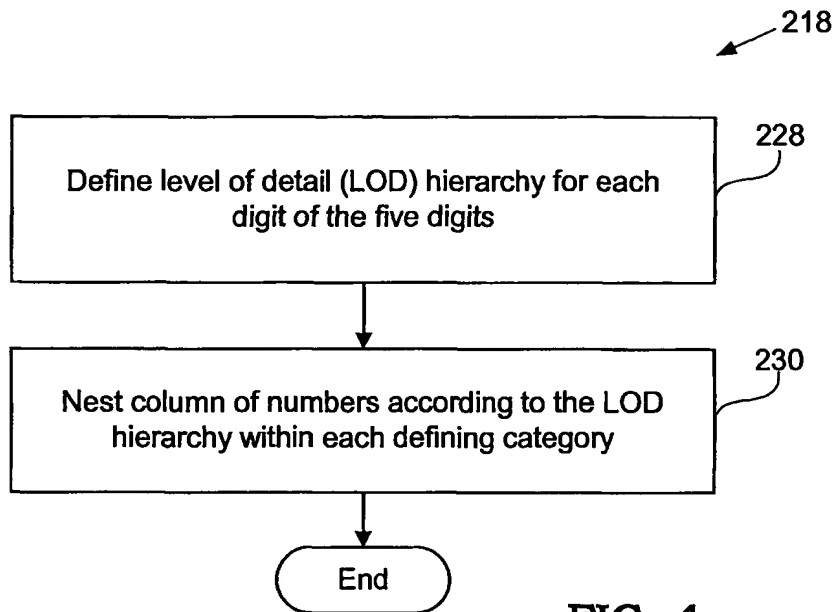


FIG. 4

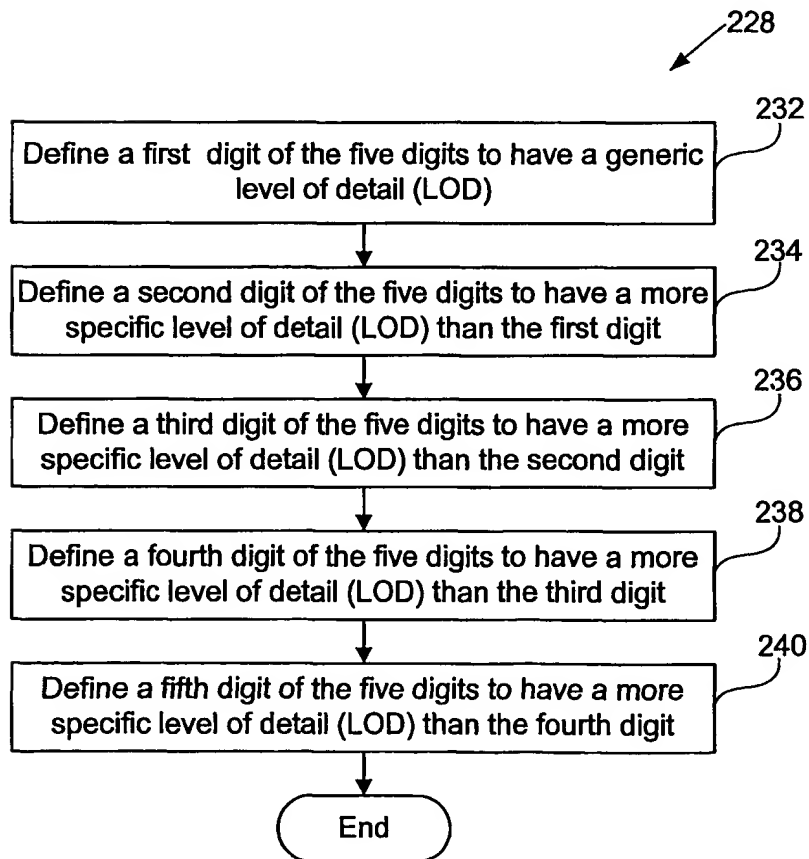


FIG. 5

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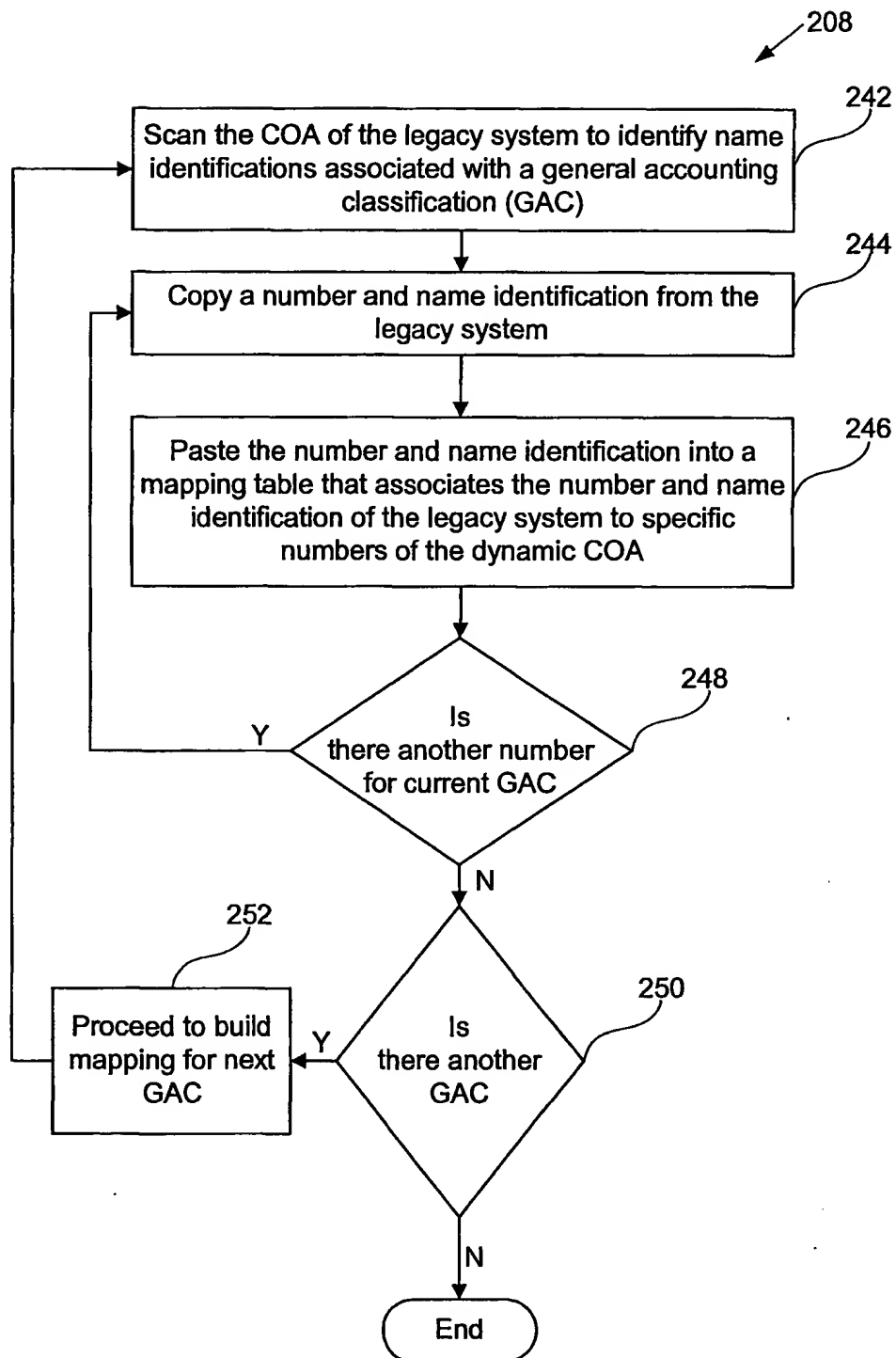


FIG. 6

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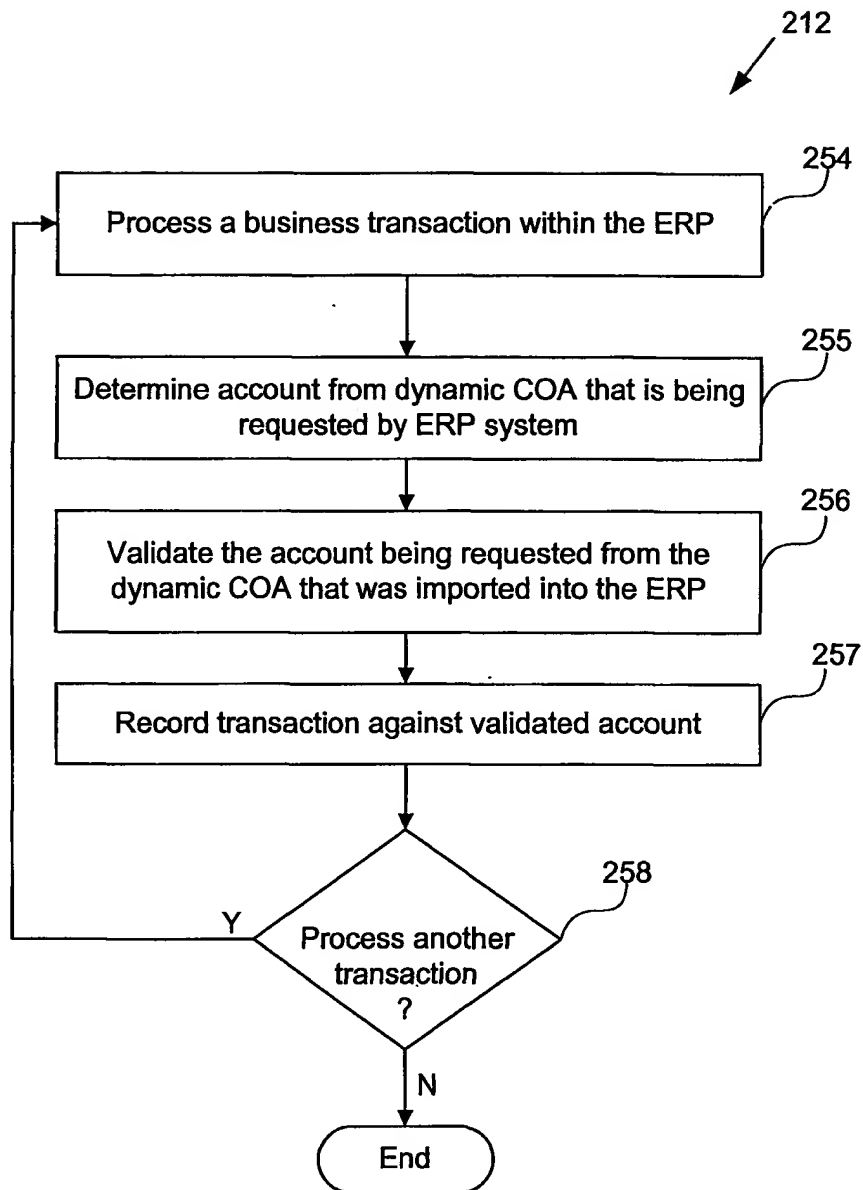


FIG. 7



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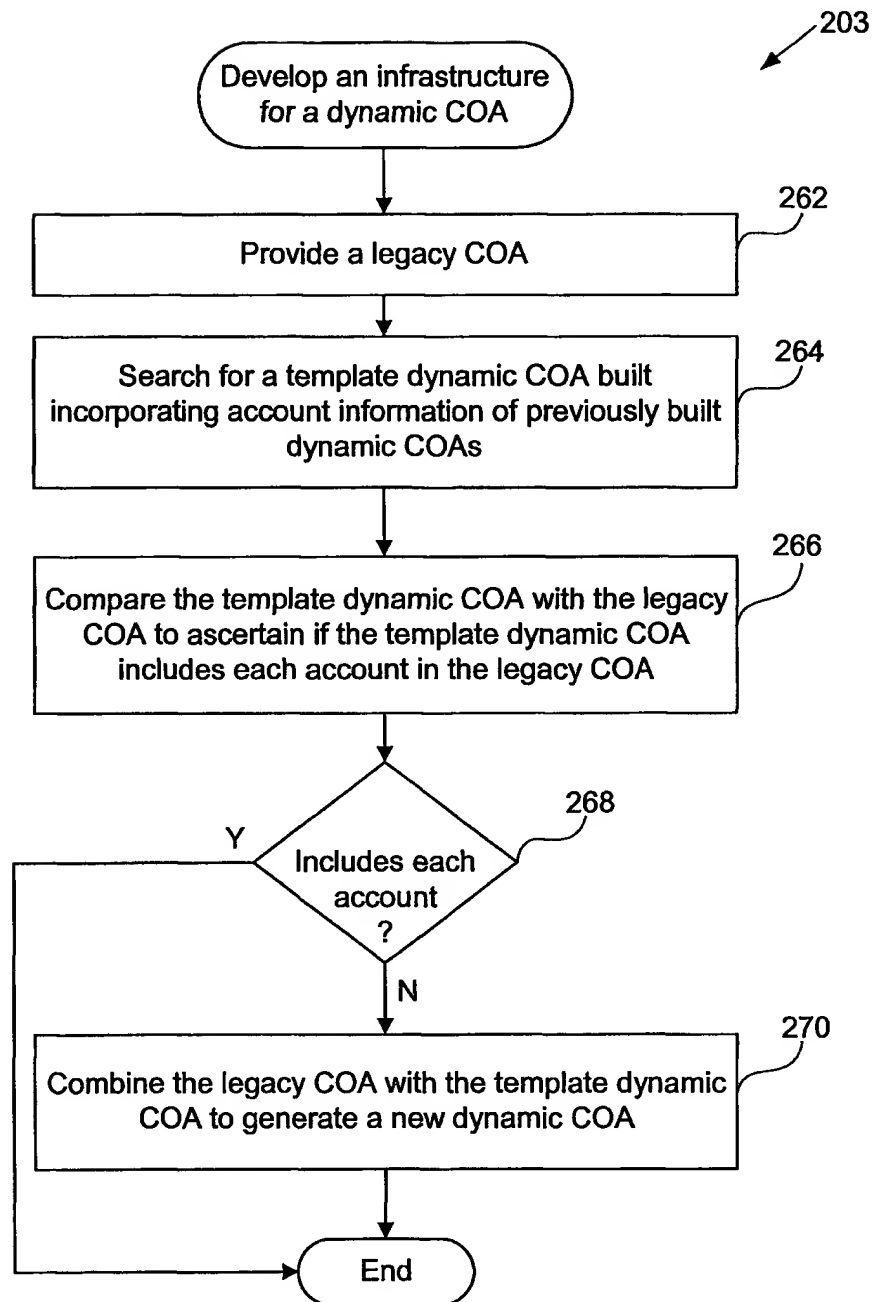


FIG. 8

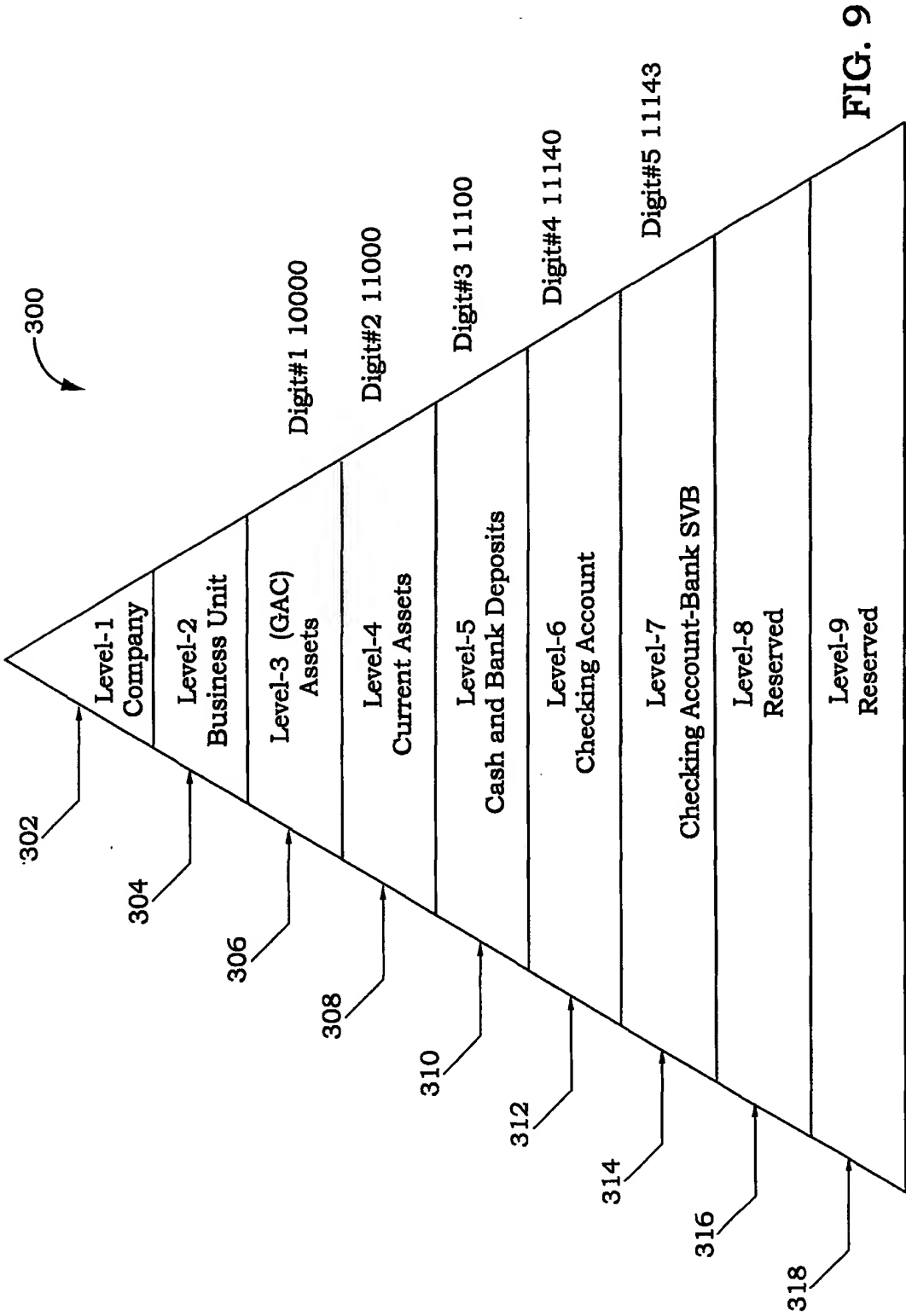


FIG. 9

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**Level 3**

	<b>Obj Acct #</b>	<b>Description</b>	<b>LOD</b>	<b>PEC</b>
[GAC]	10000	Assets	3	N
[GAC]	20000	Liabilities	3	N
[GAC]	30000	Stockholders' Equity	3	N
[GAC]	40000	Revenue	3	N
[GAC]	50000	Cost of Goods Sold	3	N
[GAC]	60000	Adjustments to COGS	3	N
[GAC]	70000	Operating Expenses	3	N
[GAC]	80000	Other Income & Expenses	3	N
[GAC]	90000	Provision For Income Tax	3	N

**FIG. 10**

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## Level 4

	Obj Acct #	Description	LOD	PEC
[GAC]	10000	Assets	3	N
	11000	Current Assets	4	N
	13000	Long-Term Investments	4	N
	15000	Property Plant & Equipment	4	N
	17000	Intangible Assets	4	N
	19000	Other Non-Current Assets	4	N
[GAC]	20000	Liabilities	3	N
	21000	Current Liabilities	4	N
	25000	Noncurrent Liabilities	4	N
[GAC]	30000	Stockholders' Equity	3	N
	31000	Capital Stock	4	N
	35000	Paid-In Capital	4	N
	37000	Contra Equity Accounts	4	N
	39000	Retained Earnings	4	N
[GAC]	40000	Revenue	3	N
	41000	Hardware	4	N
	42000	Software	4	N
	43000	Services	4	N
	44000	Royalty Income	4	N
	49000	Other Revenues	4	N
[GAC]	50000	Cost of Goods Sold	3	N
	51000	Hardware	4	N
	52000	Software	4	N
	53000	Services	4	N
	54000	Royalty Income	4	N
	59000	Other Revenues	4	N
[GAC]	60000	Adjustments to COGS	3	N
	61000	Freight & Shipping	4	N
	62000	Inventory/Material Adjustments	4	N
	63000	Overhead	4	N
	64000	Franchise & Royalty Fees	4	N
	65000	Variances	4	N
	66000	Warranty	4	N
	69000	Other Adjustments to COGS	4	N
[GAC]	70000	Operating Expenses	3	N
	71000	Personnel Expenses	4	N
	73000	Departmental Expenses (SG&A)	4	N
	77000	Other Expenses	4	N
	79000	Allocations	4	N
[GAC]	80000	Other Income & Expenses	3	N
	81000	Other Income	4	N
	82000	Other Expenses	4	N
[GAC]	90000	Provision For Income Tax	3	N
	91000	Federal Income Tax	4	
	92000	Local Income Tax	4	
	93000	State Income Tax	4	

FIG. 11

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## Level 5

	<b>Obj Acct #</b>	<b>Description</b>	<b>LOD</b>	<b>PEC</b>
[GAC]	<b>10000</b>	<b>Assets</b>	<b>3</b>	<b>N</b>
	11000	Current Assets	4	N
	11100	Cash and Bank Deposits	5	N
	11200	Short-Term Investments	5	N
	11300	Accounts Receivable	5	N
	11400	Other Receivables	5	N
	11500	Notes Receivable - Current	5	N
	11600	Inventory	5	N
	11700	Prepaid Expenses	5	N
	11900	Other Current Assets	5	N
	13000	Long-Term Investments	4	N
	13100	Investments-Available For Sale	5	N
	13300	Investments-Held To Maturity	5	N
	13500	Long-Term Equity Investments	5	N
	13900	Other Long-Term Investments	5	N
	15000	Property Plant & Equipment	4	N
	15100	Prop Plant & Equip - Assets	5	N
	15500	Prop Plant & Equip - Accm Depr	5	N
	15900	Construction In Progress	5	N
	17000	Intangible Assets	4	N
	17100	Goodwill	5	N
	17200	Organization Costs	5	N
	17300	Patents	5	N
	17400	Trademarks	5	N
	17900	Other Intangibles	5	N
	19000	Other Non-Current Assets	4	N
	19100	Notes Receivable - LT	5	N
	19900	Other Non-Current Assets	5	N
[GAC]	<b>20000</b>	<b>Liabilities</b>	<b>3</b>	<b>N</b>
	21000	Current Liabilities	4	N

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FIG. 12

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## Level 6

[GAC]	Obj Acct #	Description	LOD	PEC
	10000	Assets	3	N
	11000	Current Assets	4	N
	11100	Cash and Bank Deposits	5	N
	11110	Restricted Cash	6	
	11120	Cash Clearing Account	6	
	11130	Cash in Bank	6	
	11140	Checking Account	6	N
	11150	Credit Card	6	
	11160	Lockbox	6	
	11170	Money Market Account	6	N
	11180	Payroll Account	6	
	11190	Petty Cash	6	L
	11200	Short-Term Investments	5	N
	11210	Certificates of Deposit	6	
	11220	Investment Account	6	
	11230	Money Market Investment	6	
	11240	Savings Account	6	
	11250	Section 125 Account	6	
	11260	Treasury Bills	6	
	11270	Commercial Paper	6	
	11290	Other Short-Term Investments	6	
	11300	Accounts Receivable	5	N
	11310	Accounts Receivable - Trade	6	M
	11320	Accounts Receivable - Clearing	6	
	11390	Accounts Receivable - Other	6	L
	11395	Allow For Doubtful Accounts	6	
	11400	Other Receivables	5	N
	11410	Coop Receivable	6	
	11420	Employee Advances	6	L
	11430	Freight Receivable	6	
	11440	Income Taxes Receivable	6	
	11450	Interest Receivable	6	



FIG. 13

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## Level 7

	<b>Obj Acct #</b>	<b>Description</b>	<b>LOD</b>	<b>PEC</b>
[GAC]	<b>10000</b>	<b>Assets</b>	<b>3</b>	<b>N</b>
	11000	Current Assets	4	N
	11100	Cash and Bank Deposits	5	N
	11110	Restricted Cash	6	
	11120	Cash Clearing Account	6	
	11130	Cash in Bank	6	
	11140	Checking Account	6	N
	11142	Checking Account - Comerica	7	
	11145	Checking Account - SVB	7	
	11148	Checking Account - Sweep	7	
•				
•				
•				
[GAC]	<b>40000</b>	<b>Revenue</b>	<b>3</b>	<b>N</b>
	41000	Hardware	4	N
	41100	Hardware - Product Group #1	5	B
	41110	Product Group #1 - Item #1	6	
	41120	Product Group #1 - Item #2	6	
	41130	Product Group #1 - Item #3	6	
	41140	Product Group #1 - Item #4	6	
	41150	Product Group #1 - Item #5	6	
	41160	Product Group #1 - Item #6	6	
	41170	Product Group #1 - Item #7	6	
	41180	Product Group #1 - Item #8	6	
	41190	Product Group #1 - Other	6	
•				
•				
•				
[GAC]	<b>90000</b>	<b>Provision For Income Tax</b>	<b>3</b>	<b>N</b>
	91000	Federal Income Tax	4	
	92000	Local Income Tax	4	
	93000	State Income Tax	4	

FIG. 14

# PATENT COOPERATION TREATY

# PCT

## DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)


Applicant's or agent's file reference <b>ASOFP001.P</b>	IMPORTANT DECLARATION	Date of mailing(day/month/year) <b>20/09/2001</b>
International application No. <b>PCT/US 01/ 20320</b>	International filing date(day/month/year) <b>25/06/2001</b>	(Earliest) Priority date(day/month/year) <b>26/06/2000</b>
International Patent Classification (IPC) or both national classification and IPC <b>G06F17/60</b>		
Applicant <b>ARISTASOFT CORPORATION</b>		

This International Searching Authority hereby declares, according to Article 17(2)(a), that no international search report will be established on the international application for the reasons indicated below

1. ☒ The subject matter of the international application relates to:
  - a. ☐ scientific theories.
  - b. ☐ mathematical theories
  - c. ☐ plant varieties.
  - d. ☐ animal varieties.
  - e. ☐ essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
  - f. ☒ schemes, rules or methods of doing business.
  - g. ☐ schemes, rules or methods of performing purely mental acts.
  - h. ☐ schemes, rules or methods of playing games.
  - i. ☐ methods for treatment of the human body by surgery or therapy.
  - j. ☐ methods for treatment of the animal body by surgery or therapy.
  - k. ☐ diagnostic methods practised on the human or animal body.
  - l. ☐ mere presentations of information.
  - m. ☐ computer programs for which this International Searching Authority is not equipped to search prior art.
2. ☐ The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:
 

☐ the description
☐ the claims
☐ the drawings
3. ☐ The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:
 

☐ the written form has not been furnished or does not comply with the standard.
 ☐ the computer readable form has not been furnished or does not comply with the standard.
4. Further comments:

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  <b>María Rodríguez Nóvoa</b>
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## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

The subject-matter claimed in claims 1 to 24 and 28 falls under the provisions of Article 17(2)(a)(i) and Rule 39.1(iii) and (v) PCT, such subject-matter relating to a method of doing business and to a mere presentation of information.

Claims 25 to 27 relate to commonplace technological features for performing the business method of the method claims and the presentation of information. Although these claims do not literally belong to the method category, they essentially claim protection for the same effects as the method claims. With reference to the Guidelines, B-VIII, points 1-6, the International Searching Authority considers that searching such commercial features would serve no useful purpose. This applies to the remaining commonplace technological features of these claims as well.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.